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Arms Control and Disarmament

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PREFACE

Arms control and disarmament are still prominent features on the security agenda of the post-Cold War period. Events in the 1990s have changed the priorities for these efforts. Apart from the significant political changes, technological developments have highlighted additional dimensions of arms control and disarmament issues. During the Cold War, propaganda was combined with attempts to attain practical results. Nowadays, the achievement of results has become the major purpose of arms limitation and reductions.

Though the bilateral dialogue between the U.S. and Russia remains important for many states, it has lost its primary importance. The world must deal with numerous regional conflicts. The Indian and Pakistan nuclear tests demonstrated clearly the danger of regional nuclear arms races for global security. In the field of conventional arms control, issues of anti-personnel landmines and light weapons have assumed importance.

An evaluation of the situation in the field of arms control and disarmament is obvious. Accordingly, this collection of papers addresses the following basic questions: What have been the key factors driving change since the end of the Cold War? What are the main problems to be addressed today? What are the likely currents in the future?

The papers were originally commissioned by the Swiss Government and presented at the 3rd International Security Forum, held in Zurich, 19-21 October 1998. They have been substantially revised for publication. We would like to thank the authors for their valuable contributions. The papers originated through discussions and exchanges of a group of experts brought together by the Geneva Centre for Security Policy under the "Cluster of Competence in Arms Control and Disarmament." The Geneva Centre conducted the revision of the papers for publication.

Zurich, August 1999

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SUMMARY

Pál Dunay: Prospects for Further Constraints in the Conventional Field

Not long before or after the CFE Treaty was signed in 1990 the East-West conflict came to an end. That process questioned the political relevance and strategic significance of conventional arms control in Europe. Since then, negotiators have been coping with a "technical exercise" to codify the changes necessary to establish an arms control regime not based on the limited confrontation of military blocs. The move from an arms control regime based on confrontation to one based on co-operation has been largely unsuccessful. The political drive has been missing to adopt new or adapted regulations.

The CFE adaptation talks have already reached a phase where it is only a question of time before the completion of the treaty text for the upcoming OSCE Summit to be held in Istanbul in November 1999. It is one of the few arms control measures that Russia supports as it helps its accommodation into the new international system. At the same time it is not particularly important because for most parties the current, entirely outdated, and in some ways absurd treaty still makes sense. This does not mean that the new regime would enter into force or that its adoption would not be blocked by factors other than the residual zigzags of East-West relations. Even though adequate attention has been paid to the flank rule in the East-West context it was not addressed as far as Russian troop stationing on the territory of some countries of the southern flank. It may well be that if no accord is reached on the schedule of the withdrawal of Russian troops and armaments from countries like Azerbaijan, Georgia and Moldova, further advance to the Treaty will be blocked. In the end we pay a high price for ignoring the existential interests of certain countries.

The CFE Treaty, despite the little attention paid to it currently, still plays a central role in European arms control. Without an adapted CFE Treaty, it will be impossible to effectively move from Art. IV to Art. V of Dayton arms control – which extends to several neighbours of the former Yugoslavia as well. As long as some parties to the CFE Treaty remain uncertain about their new armaments and equipment levels, they will not negotiate seriously in the subregional context. If the Kosovo conflict results in a separate arms control regime, i.e. if Kosovo does not become an independent state but remains de jure a part of Yugoslavia, it will reflect that European security proper has become fragmented during the last decade.

This paper calls attention to the danger of adopting further global arms control commitments without adequate verification which makes all those measures, like the ban on anti-personnel land mines or future limitations on small arms and light weapons, easily reversible. If this tendency continues, European and global conventional arms control may be parting.

David C. Atwood: Tackling the Problem of Anti-Personnel Landmines

On March 1, 1999, the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and their Destruction entered into force. For a major international treaty banning a whole category of weapons, this was a remarkably short time. The international process which brought about this Convention (referred to as the "Ottawa Process") built on the perceived failure of the 1995/96 Review Conference of the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (CCW) to deal adequately with the civilian impact of the use of anti-personnel landmines. The "Ottawa Process" drew substantially on an informal alliance of non-governmental actors, international agencies, and committed governments for the rapid negotiation of this Convention. This alliance has continued, since the signing of the Convention in December 1997, to be critical to its early entry-into-force and to current steps at implementation. The humanitarian nature of the landmines problem proved pivotal in enabling a shift, in this case, in the way weapons questions are considered, making space for greater consideration of the human impact of the use of weapons and a broader attention to the understanding of "security". The longer-term impact of this experience on approaches to dealing with other weapons issues is still to be determined. With the First Meeting of States Parties to the Mine Ban Convention in May 1999 in Maputo, Mozambique, began the next phase of global action on anti-personnel landmines and the true test of the strength of the Convention. This test will be about how rapidly and effectively the Convention moves towards universal membership and its use provisions observed, existing stocks are destroyed and mined areas cleared, and individuals and communities affected by mines are assisted.

Jozef Goldblat: Prospects for a Ban on the Use of Nuclear Weapons

The nuclear-weapon States (with the exception of China) argue that they have the right to use nuclear weapons for defence in any armed conflicts, including conflicts initiated with conventional means of warfare. The argument contradicts the obligation to bring about nuclear disarmament, as stipulated in the 1968 Nuclear Non-Proliferation Treaty. To remove this contradiction, the nuclear powers would have to renounce the use of nuclear deterrence in so far as it consists of threatening a nuclear attack in response to any attack. It would have to be declared invalid.

However, as long as nuclear weapons remain in the arsenals of States, a ban on their use would, in fact, amount to a ban on their first use. For, according to the doctrine of belligerent reprisals, a second, retaliatory use of a banned weapon is not considered a breach, if it is proportionate to the violation committed and to the injury suffered. In other words, nuclear weapons possessed by some States would serve to deter their first use by others. Nevertheless, it is "no use", rather than "no first-use", that should become a norm of international law with regard to nuclear weapons. A legitimate retaliatory use would be an exception to the general rule of no use.

Martin Schütz and Heiner Staub: Prospects for the Effective Implementation of the Biological and the Chemical Weapons Conventions

The potential use of chemicals, toxins and infectious agents as weapons of mass destruction has been a subject of growing concern. Chemical weapons (CW) were used from World War I up to the Iran-Iraq war in the 80's.

Biological Weapons (BW) have not been used in warfare up to now, but it has become clear that biological agents as weapons are becoming attractive.

Beginning with the 1925 Geneva Protocol and later with the Biological Weapons Convention (BWC) in 1975, a first step toward an eradication of a whole category of weapons has been undertaken. With an additional protocol that prescribes the procedures for an efficient verification of the obligations of the Convention, States Parties are now willing to strengthen the Treaty. Although considerable progress has been made, there are still some doubts about the extent to which such a Convention is really verifiable in an effective way. Nevertheless, there is no valid alternative to a strong BWC for an effective ban of biological weapons.

CW, although already banned along with BW by the Geneva Protocol in 1925, have obviously been an accepted weapon throughout the 20th century. The struggle for a stronger disarmament treaty for CW started after the conclusion of the BWC. Only a historical "window of opportunity" made it possible for the Chemical Weapons Convention (CWC) to be concluded in 1992. The CWC entered into force in 1997 as the first non-discriminatory, universal and verifiable disarmament treaty. Today, it has become clear that the start-up of the Organisation for the Prohibition of Chemical Weapons has been successful, even though there are some implementation problems.

What are the prospects for the prohibition of CBW in the future? CW and BW still have a certain attraction. CW are relatively easy to develop if a country possesses a modest chemical industry. For those countries with a relatively low state of preparedness against CW and to whom access to modern weaponry is denied for political or financial reasons, it might still be a weapon of choice, particularly for those who have been classified as rogue states.

BW are relatively cheap and easy to access and have the advantage that potential attackers cannot easily be identified. This might be one reason for the increasing concern that terrorist groups will use BW. It is generally accepted that the chance of CBW being used in a conventional conflict between states is relatively small for the time being. On the other hand, the chances that terrorist groups will use them are increasing, and the world will have to cope with that threat.

Shahram Chubin: Nuclear Nonproliferation after the Indian and Pakistan Tests

For too long arms control has been conceived of as a global problem with consequent emphasis on regimes and global norms. In fact, the number of states that have seriously considered and sought the acquisition of nuclear weapons are (and have been) a handful. They have in common serious security concerns (including the legacies of recent wars) and no allies or security assurances on which they can reliably depend. The India-Pakistan tests and admission to nuclear capability only underlined the fact that most of these states form an arc from the near East through the Gulf to east Asia. India and Pakistan's accession to the ranks of nuclear powers was expected. It has not fundamentally changed the incentives of the remaining potential proliferants: Iraq, Iran and North Korea. It has underlined, however, the necessity to treat these states' motives seriously and to devise approaches to their security needs that fit their specific requirements.

PROSPECTS FOR FURTHER CONSTRAINTS IN THE CON-VENTIONAL FIELD: REGIONAL AND GLOBAL AP-PROACHES

by Pál Dunay, Director of the International Training Course (ITC), Geneva Centre for Security Policy

The first decade of the post East-West conflict era is about to come to an end.¹ Terminology that calls the time we live in as: the "post East-West conflict", or the "post Cold War" period, seems to indicate that no positive definition has yet developed to describe our era. One may say the world is missing the genius who could give an adequate description of the state current international relations.² The sudden changes seen in the first years of the decade were followed by slower and more evolutionary processes, while the evolution of arms control has shown a different, one may say opposite, trend. When the political agenda of the major players of international relations was dominated by issues other than arms control, European conventional arms control took a pause and focused exclusively on the unfinished business that had been left over from the previous era (CFE IA, Open Skies, further CSBMs). Today, arms control, in the broad sense of the word, has regained its relevance – yet, under different conditions than in the previous era.

1 DRIVING FACTORS

As long as the two so-called superpowers, the United States and the Soviet Union, played their global zero-sum game relying on the combination of the deterrence of nuclear forces and their formidable conventional arsenals, the cohesion of the two blocs opposing each other was guaranteed. The arms control agenda was dominated

¹ The question whether the East-West conflict came to an end with the 1989 revolutions of East Central Europe or with the dissolution of the Soviet Union in the end of 1991 still begs for an answer, the former shared primarily by Europeans, the latter in the United States.

² This view is represented by Walt, Stephen M. International Relations: One World Many Theories. In: Foreign Policy, No. 110 (Spring 1998): p. 36. Walt's title is telling in this respect "Waiting for Mr. X" as if we would only be missing the intellect to realise what system of international relations we are in. I think the problem is more fundamental, as the system seems fluid. Thus the scenario analyses realistically reflect the impossibility to draw definitive conclusions.

by the single most important concern of the two countries, that of nuclear war. Stability, in different senses of the term, had to be provided through nuclear deterrence and nuclear arms control. A wide range of measures could contribute to it: from the reduction of arsenals to testing limitations, to confidence-building measures as well as the establishment of sophisticated communication systems. Further measures aimed at freezing the long-term privileged role of the leading nuclear powers in the form of nuclear non-proliferation.

Non-nuclear arms control, at least until the mid-1980s, remained a secondary corollary to the European arms control agenda. This remained the case throughout the East-West conflict in spite of the fact that the focal point of the global conflict was Europe throughout that period. This was another reflection of the domination of those nuclear powers in Europe, themselves only partly European states. At best, the negotiations conducted until the mid-1980s were useful to understand the threat perceptions of the parties and, at worst, were entirely irrelevant for European security. The change occurred following the ascension to power of Mikhail Gorbachev. The redefinition of Soviet security interests, the readiness to recognise the security concerns of other countries ("the other side"), and the increased emphasis on the limitation of weapons categories, other than nuclear, were results of this change. I believe three main factors need to be taken into account when dealing with the change of Soviet thinking on conventional arms:

- the political concept of a common European home is impossible to put into practice while the highest peacetime concentration of conventional weapons in Europe contributed to the threat perception of most countries of the continent;
- the military ideology about the danger of a "totally destructive conventional war", bearing in mind the number of nuclear reactors and the density of factories producing hyper-toxic chemicals in Europe, could soon reach the devastation of a nuclear exchange; and
- the change in the subjective component of Soviet security policy ranging from the new foreign minister to the opening of the structures of influence to the "institutchiki" that resulted in the adoption of new ideas which had earlier been alien to the Soviet leadership.

Furthermore, the forming of security policy was no longer confined to a certain limited number of agencies. Thus, the interest of the country which had significant superiority in conventional weapons in Europe appeared to be to negotiate conventional arms limitations and certain operational constraints. This is a decisive element and an essential precondition of arms reduction negotiation, needed to convince the party which enjoys a convenient quantitative superiority to come to the negotiating table.

Bi-polarity has been replaced by another structure of international relations whose contours have been far less easy to define. Nevertheless, the departure from bi-polarity did not happen overnight. It is not the purpose of this study to analyse the evolution in detail, but rather to present the shape of international relations which will determine the future constraints of conventional arms. The following points are regarded as significant in the structure of international relations:

- the move from bi-polarity to a more democratic international system did not compensate for the weight, size and strength of countries. Thus, the world has embarked upon a system of limited multipolarity where a concert of great powers possesses a decisive say. In the current situation it is impossible to make any major decision on European security without the active support, or at least the toleration, of some major powers;
- the only country with globally defined interests is the United States. For the United States, Europe is only one of the theatres of military operations and, on its own right, not the most important. It is frequently mentioned that Europe is important as a springboard for US forces to the Middle East, and the southern littoral of the Mediterranean and Africa;
- the centre of confrontation has moved away from Europe as far as global security is concerned. The predominant problems of Europe are no longer of a traditional security character;
- the longest era of peace in modern European history came to an end not much after the East-West conflict had finished and nonetheless the importance of the continent in international security declined. As the traditional military risks are confined to certain sub-regions and do not carry the danger of large-scale horizontal escalation, the security risks remain limited and confined to some countries; and

• in light of the general improvement of the security situation on the continent, the public interest in security matters has declined steadily and, together with it, the interest in arms control.

Interestingly, conventional arms control has been less affected by the decline of public interest as it was less prone to its direct influence anyway. Contrary to nuclear arms (which could attract the attention of three hundred thousand demonstrators in Bonn in the early 1980s concerning the deployment of intermediate range nuclear weapons and cruise missiles), the public never had similarly strong *direct* influence on conventional arms subject to negotiations at the traditional forums of European arms control. The same cannot be applied to every sort of conventional armaments and equipment, as will be demonstrated later.

One would thus conclude from the above that with the disappearance of a common existential threat in Europe, the role of conventional arms as means of fighting a war has become more differentiated. For countries which were involved in violent clashes after the end of the East-West conflict, the end of the dominant role of the decisive confrontation meant that they have felt less constrained in their actions and their reliance on conventional arms. For several countries, particularly those small ones which either do not belong to alliances or do, but do not have significant power projection capabilities beyond their territory, the whole problem of armaments has declined. In addition, for some leading powers which have projected power to regions other than Europe, the significant decline of the threat resulted in a dilemma. It became more difficult to legitimise the preservation of the level of armaments and military preparedness, and thus military appropriations. Last but not least, the problems of some of the post Soviet states have been unique, among the most spectacular have been those of the Russian Federation: e.g., the gap between the threat perception of Russia and that of other countries of Europe, the resistance to reform to achieve "leaner and meaner" armed forces, the antiquated military structure, and the inadequate financing, have all presented major challenges.

As the processes of the last decade have affected countries in the Euro-Atlantic area differently, it is largely impossible to draw general conclusions regarding how their attitude to conventional arms has developed. In addition, the term conventional arms control can only be used collectively; that fact makes differentiation necessary.

One can group conventional arms control in Europe according to different characteristic features such as "structural" and "operational" arms control. Where the former emphasises the possession of a certain type of weapon or determines the maximum amount to be held by a country, the latter stresses a restraint of certain military activities, like troop movements and manoeuvres, or sets forth some transparency measures, like exchange of information on military budgets or visits at military facilities. It is apparent that the latter embraces a broader variety of methods than the former. This categorisation will help separate two major groups of arms control measures pursued in Europe, namely the CFE process and the CSBMs agreed upon in the CSCE/OSCE.³ It is also relevant for the purpose of this study to make a difference between genuine European conventional arms control measures and those of global character which, evidently, are applicable and/or have repercussions for Europe.

2 THE PROSPECTS OF EUROPEAN ARMS CONTROL

2.1 The Perspectives of the CFE Process

Since the limitation of conventional armed forces took on importance for European security, through the conclusion and implementation of the CFE Treaty of 19 November 1990, it has had to adapt itself to rapidly changing circumstances. An instrument that was negotiated at the very end of the East-West conflict and reflects the logic of the previous era between hostile blocs might have been regarded on the very day of its signature as a relic of the past. Nevertheless, the CFE Treaty has a number of valuable accomplishments to its credit. First, by eliminating 58,000 weapons systems, it contributed to a lessening of the level of armaments in the area of application. Second, it brought a significant increase in transparency as a result of by now about 3,000 on-site inspections and an intrusive exchange of information. Third, the Treaty's forums and mechanisms made a major contribution to one of the traditional objectives of arms control – helping to smooth communication between the states parties on questions of European security.

³ For this see Darilek, Richard E. The Future of Conventional Arms Control in Europe. A Tale of Two Cities: Stockholm, Vienna. In: SIPRI Yearbook 1987: World Armaments and Disarmament. Oxford, 1987: pp. 339-341.

One can, of course, put the CFE Treaty in a different light. Little is known about how the armed forces of the states parties would have evolved without the conclusion of the Treaty. The question remains whether the observation of Lawrence Freedman, made in the 1980s, that the finance ministers have become the best controllers of arms, retains its relevance for the 1990s. If answered in the affirmative, then the reason for reductions according to the Treaty could be regarded as partly irrelevant. The importance attributed to transparency is not entirely convincing either. The extensive exchange of information and the knowledge accumulated from numerous inspections have been of diminishing importance. The information gathered has had political and strategic relevance for a few countries only. In most cases, when the security interests of the countries have been sub-regional and have had limited analytical capabilities, they were stockpiled. The situation is similarly ambivalent with respect to communication under the CFE regime. Following the end of the East-West conflict many other channels have opened, the zero-sum game bilateral structure has vanished. When exchanges have become intensive at several multilateral forums, the relative importance of the particular channels established to manage the CFE regime diminished unavoidably. In sum, it is difficult to assess clearly the importance of the CFE regime following the end of the East-West conflict. Its future, as its past, will be dependent upon its ability to adapt to rapidly changing circumstances.

As is known, the parties of the Treaty did their utmost to flexibly adapt it to fast changing circumstances without revising it formally: decisions were taken by the parties in the Joint Consultative Group; parties were replaced by their successor states; and holdings were reallocated in the so-called Budapest-Tashkent group. It was politically understandable that the parties wanted to avoid modifications that would have required ratification. This tactic has proved successful for more than five years after treaty signature. The strategic changes that have had a direct bearing upon the security of some parties made formal treaty modification necessary. The two most important of them were the change of the strategic role and importance of the Caucasus area due to the dissolution of the Soviet Union and the mounting instability on the southern border of Russia, and the enlargement of the Atlantic Alliance extending to three former Warsaw Treaty countries and possibly to other countries of East Central Europe later. As these two factors will have a decisive impact on the outcome of the CFE adaptation talks, I will focus on them.

2.1.1 CFE Adaptation and the NATO Enlargement Process

The treaty structure currently in force is based on the existence of two groups of states parties which are identical, as far as their composition is concerned, with the members of NATO and the Warsaw Treaty - or the European successor states of the latter. Even with the dissolution of the Warsaw Treaty, the Soviet Union and Czechoslovakia, the semblance of balance remained; there continues to be two, more or less, cohesive groups and therefore a balance is maintained between them. When the NATO enlargement process took place an experienced negotiator stated: "If countries that join NATO can keep their membership in the other group the result is a kind of political science fiction." It was apparent when the adaptation talks started, after the Lisbon OSCE summit, that the group structure had to be revised. The position of the NATO group and its clientele was unanimous that the group structure had to be eliminated and replaced by a system of national commitments, though it offered certain "concessions" to avoid giving the impression that it was the objective of the adaptation of the CFE Treaty to gain unilateral advantage vis-à-vis Russia. Russia, in its turn, was of the view that the constraints on groups of states parties had to be retained. The category would in the future cover "... two or more States Parties that, in accordance with agreements concluded between them, have joint military command structures."⁴ The proposed definition makes it clear that Russia has given up hopes of a deeper military integration in the CIS and has created the term so that it could not be applied to any other group than to the Atlantic Alliance. It was obvious that under the original conditions offered by the parties, no solution to this fundamental difference could be found. The only question remaining was what sort of compensation could be found for any major concession.⁵

For Russia, Belarus, and to some extent Ukraine, (the three western-most post-Soviet states which have not applied for NATO membership), the compensation should stem from the conciliatory attitude of the Alliance that could result in a combination of symbolic and concrete concessions. The attitude should be based on the fact that the eastern enlargement of the Atlantic Alliance is a political process that should not increase the perceived threat of countries further to the East. Thus the arsenal of NATO taken together should not increase force concentration in the new member

⁴ Statement by Mr. V. N. Kulebyakin, Head of the Delegation of the Russian Federation, to the Joint Consultative Group. Vienna, 23 April 1996: p. 6.

⁵ For more details on the debated issues see Schmidt, Hans-Joachim. Die Anpassung des KSE-Vertrages: Konventionelle Rüstungskontrolle zwischen Bündnisverteidigung und Kooperativer Sicherheit. HSFK-Report, 1/1998; Zellner, Wolfgang; Pál Dunay. Wenn sich Vergangenheit und Zukunft treffen – Die Anpassung des KSE-Vertrags. In: Institut für Friedensforschung und Sicherheitspolitik an der Universität Hamburg (Hg.). OSZE-Jahrbuch 1997. Baden-Baden, 1997: pp. 295-315; and Zellner, Wolfgang; Pál Dunay. When the Past Meets the Future – Adapting the CFE Treaty, In: Institut für Friedensforschung und Sicherheitspolitik an der Universität Hamburg (ed.). OSCE-Yearbook 1997. Baden-Baden, 1998: pp. 281-298.

states. It should be limited both as far as the amount of armaments and equipment, and the time of stationing. This was reflected in a couple of Alliance proposals. The Atlantic Alliance announced that the aggregate level of national ceilings of the 16 NATO states in the three categories of land forces would be "significantly" lower than the current group ceiling. The political purpose of announcing this unilateral reduction was to make the Russian demand for a so-called 'alliance sufficiency' superfluous by offering in quantitative terms what the demand seeks to achieve structurally. Another point in the NATO proposal is relevant in this connection; designated permanent storage sites may be either maintained or eliminated – in the latter case, 80 percent of the depot quota would lapse and the other 20 percent could be applied to active forces. In addition, the NATO proposal provided for specific stabilising measures for the so-called Visegrad countries - Belarus, the region of Kaliningrad, and the territory of Ukraine, without the flank portion of the latter's territory. These measures would consist mainly of the provision that the territorial ceilings of these units would not exceed the present maximum levels of holdings for the three categories of ground treaty-limited armaments. However, this would by no means rule out the stationing of forces from NATO countries in the new member states. If the latter were to reduce their national ceilings below the territorial ceilings that apply to them, space would be created for such stationing.

Russia did not find the offer of the West far-reaching enough. In its proposal, presented the same day when the NATO-Russia Founding Act was signed, it took a conciliatory attitude on some issues. First, in harmony with the Founding Act, Russia emphasised that the Treaty was to be based on the establishment of national ceilings. Russia declared, although still somewhat vaguely, its willingness to "examine the possibility of introducing a web of territorial ceilings as an alternative to the zonal limitations ..."⁶ Russia also announced that it was prepared "to consider the possibility of a strictly limited stationing of forces on those territories where they are not present today".⁷ Russia agreed to specify "conciliatory flexibility mechanisms to deal with changes in the ceilings and with cases where they are temporarily exceeded".⁸

⁶ Statement by Mr. A. V. Grushko, Head of the Delegation of the Russian Federation, at the Plenary Meeting of the Joint Consultative Group, Vienna, 27 May 1997: p. 2.

⁷ Ibid. pp. 2-3. It is notable that the Russian position originally excluded stationing on the territory of those countries where they were not present at the beginning of the adaptation talks. This would have deprived NATO of the option to station treaty-limited armaments on the territory of its future members.

⁸ Ibid. p. 3.

Between the summer of 1997 and late 1998 not much happened in relation to the pending issues of a post NATO enlargement adaptation of the CFE Treaty. Major differences of opinion remained. Russia understandably objected to a system which, at the expense of the treaty-limited armament holdings of the respective new member, would permit major deployments of foreign (allied) armaments. Originally, Russia wanted to restrain the deployment of stationed forces to five percent of the national holding, but later seems to have dropped the idea, presumably with a view to its own interest in the Caucasus. The problem reappeared in late 1997, early 1998, on two levels. First, there was no agreement on the matter within the western alliance, the difference of positions was most apparent between Germany and the US; the former has been of the view that under the current conditions, stationing can be strictly limited, say to the armament of a German brigade, similarly to the Russian request, whereas the US would like to retain a much higher level of strategic flexibility. With reference to "preventive deployment" the US wants NATO to be able to deploy the armaments of two divisions on the territory of any other CFE state party without any limit on simultaneous deployment in the number of CFE states. This would result in a situation where in each new NATO member state there would be maximum 460 battle tanks, 770 armoured combat vehicles and 325 artillery systems stationed above the national holdings. Furthermore, the US was reluctant to extend the territorial limitation to combat aircraft and attack helicopters with reference to the fact that no territorial limitations have applied to those categories under the Treaty of November 1990 either. Russia was insistent upon the Kaliningrad area remaining exempt from the stringent limitations of the NATO initiated stability zone. Russia's argument was based on the approach that the current CFE adaptation talks should provide compensation for the enlargement of NATO as such. Hence, such a zone should introduce supplementary limitations on the new (and prospective) NATO members, but not on Russia. Russia seems to have already come to the conclusion, and not without reason, that the current approach of some western states to the adaptation talks does not serve Moscow's security interests.

One can conclude that under the current, largely "threat-free", situation in Europe, there is more room to assert separate national security interests.⁹ As the parties to the

⁹ One has reason to assume that some countries are not of the view that the current international environment is "threat free" in Europe. Suffice it to mention Yugoslavia in this respect. In spite of this caveat, one must state that for states which have not adapted to the new international regime some of its recent evolution may look threatening whereas for most countries, who in one form or the other participate in the system, it may be accommodating.

Treaty are affected by the adaptation talks, and by their eventual result, it has been very difficult to keep the cohesion of the NATO member states and the former candidates for membership in the CFE process. For the United States, the global player, it is essential to retain strategic flexibility on the European theatre. The adapted CFE Treaty can be a means to that; the primary reason why Washington had insisted on retaining strategic flexibility during the talks. For some western European members the whole adaptation of the CFE Treaty is less a strategic matter, and more a means of keeping Russia on track as a co-operative, relatively benign, non-threatening partner. They could live without an adapted Treaty and keep the November 1990 CFE in force. For them the exercise is about accommodating Russia under reasonable terms without undermining any country's security. Some countries are affected specifically by an eventual adaptation. The flank states of NATO adjacent to the former Soviet (or to the current Russian) border, Norway and Turkey, belong to this category.¹⁰ The new NATO member countries had their own threat perception: among the strongest, Poland, whereas the Czech Republic, which is the furthest away from the CIS of the three candidates, and Hungary, where the population does not attribute particular importance to military security, feel both more relaxed - which has been reflected in their attitude at the CFE adaptation talks. Even though the Polish threat perception has deep historic roots, it has become clear that Warsaw, with its position and also with its rhetoric, could be a very troubling party to CFE adaptation. With its rigid attitude on some issues, like the geographical scope of the zone of stability, it represented something special at the negotiations and has already started to play its highprofile game at NATO forums. As a "front-line state" of NATO it is only a question of time until some other NATO member put Poland under pressure to relinquish its excessive demands or, to put it differently, for how long will other members be ready to accept Polish threat perception based exclusively on its reading of a however tragic history. Last but not least, the Russian Federation expects that it will get compensation for NATO enlargement in the framework of the adaptation of the CFE Treaty. This should reduce the threat it perceives as a consequence of the enlargement of the Atlantic Alliance. Russia must not feel hindered in trying to express its security concerns related to CFE adaptation as its threat perception is unique, except for some similarities to that of Ukraine.

Rather than outline the course of negotiations between the 23 July 1997 agreement on "Certain Basic Elements" for Treaty Adaptation and the 30 March 1999 "Decision

¹⁰ The flank issue will be addressed in point 2.1.2.

of the Joint Consultative Group on CFE Treaty Adaptation"¹¹, it is more important to analyse how the parties have arrived at a preliminary solution that brought their differences to bridgeable distance. The decision may serve as a sound basis to agree upon the text of the adapted Treaty by the time set forth in the Oslo declaration of the OSCE Council.¹² It is probable that the treaty can be signed at the November 1999 Istanbul OSCE summit meeting. (According to my assumption), treaty signature can at this stage be prevented only if events of major political significance, not related to the Treaty, have a bearing upon the process. One can suggest that the accord is the reflection of a compromise that does not fully satisfy the interests of any of the states parties. Diplomats usually conclude that a good compromise is when none of the parties is fully satisfied with the result.

It has been certain since 1997 that the adapted CFE Treaty will be based on a combination of national and territorial ceilings. National ceilings are identical with the holdings of the state party on its own territory whereas territorial ceilings are composed of national ceilings and stationed treaty-limited armaments and equipment. This means that the adapted Treaty will not contain limitations on the collective holdings of existing or future alliances. For those countries which have territory between the Atlantic Ocean and the Ural Mountains, in the area of application of the CFE Treaty, national ceiling may not exceed its territorial ceiling. This means that a state party has to decide whether it is willing to reach its limits on the national ceiling by its national forces or keep a smaller amount of treaty-limited armaments and equipment in the hope that it can host foreign forces on its territory. Smaller countries which belong to an alliance, like NATO, would certainly opt for the latter whereas others may opt for self-reliance. In order to gain the consent of the Russian Federation, and also of some other post-Soviet states, to such a solution, NATO member countries made a series of official statements where they announced further reductions in their national ceilings and made predictions for their territorial ceilings.¹³ They are subject to the entry into force of the adapted Treaty.

¹¹ Chairman's best guess, "Decision of the Joint Consultative Group on CFE Treaty Adaptation" JCG.DD/4/99/Rev.4, 30 March 1999. When reference is made to that document it will not be accompanied by a footnote.

¹² The OCSE participating states welcomed in the declaration "the commitment made by the States Parties to complete the adaptation process by the time of the OSCE Summit in 1999". OSCE Ministerial Council, Oslo Ministerial Declaration, 2 December 1998.

¹³ Statements by the 15 NATO member states at the meeting of the Joint Consultative Group on 2 December 1997. (Iceland which has no holdings subject to the limitations of the treaty did not make such a statement.)

During the decade that has passed since the fall of the Berlin wall force levels have generally been reduced without interruption in most European countries. They had reached levels in many cases when their further reduction may endanger national, and in some cases international, security. It is thus essential to agree upon mechanisms which make the revision of ceilings possible. Further unilateral reductions are, of course, less of a problem as they usually do not jeopardise any country's security interests.¹⁴ The increase of ceilings, however, whether lasting or temporary, is more troubling for parties to an arms limitation treaty.

For some time, Russia insisted upon a system that would have made the change of ceilings, particularly their upward modification, impossible without the consent of other states parties. Russia wanted ceilings that could be *revised* only by consensus whereas NATO aimed for a more flexible mechanism to review ceilings. The common revision of the parties' force levels by consensus would have given veto power to any state party to the Treaty on the change of the force level of every other party. This was regarded as totally unacceptable to the Atlantic Alliance. Russia has become ready for compromise and NATO has been ready to limit its flexibility as far as temporary and extraordinary deployments have been concerned. The solution, which will in all likelihood be codified in the adapted Treaty, is based on the following. States parties will declare their initial national holdings upon the signature of the adapted CFE treaty. In order to guarantee that no increase of holdings threaten military stability in Europe, the initial national ceilings cannot be higher than the national maximum levels. It is interesting to note that military stability has been identified by negotiators with certain force levels, or the freeze of the status quo of conventional forces in Europe. The unilateral reduction of national ceilings is not complicated by any requirement other than a 90 day advance notification. Similarly, to the regulation of the current Treaty, it is declared further that a unilateral decrease of national ceiling "does not confer the right on any other State Party to increase its" national ceiling. The upwards revision of national ceilings is confined to a maximum 20 percent increase in each category of ground treaty-limited armaments (battle tanks, artillery pieces and armoured combat vehicles /ACVs). The interests of small states parties is protected by a specific minimum increase; for example, the 20 percent rule must not be less than 40 battle tanks, 60 ACVs, 20 artillery pieces. In addition, a specific *maximum* prevents military great powers from significantly

¹⁴ A detailed analysis of the topic would, of course, highlight that further unilateral reductions may be a source of common concern of countries which belong to the same alliance.

modifying their military force ratios. Accordingly, the amount must not exceed 150 battle tanks, 250 ACVs and 100 artillery pieces irrespective of whether the 20 percent rule mentioned above would entitle a state party to a bigger increase or not. Similarly, strict rules would apply for the revision of territorial ceilings. This means that no state party should worry about a major unexpected increase of foreign forces on the territory of another state party. As such, Russia need not worry about a significant reinforcement of U.S. forces on the territory of the new members of the Atlantic Alliance close to Russian borders, e.g. in the north of Poland adjacent to Kaliningrad. The constraints concerning the upward revision of the ceiling on combat aircraft and attack helicopters, bearing in mind their utility in modern warfare, are stricter than those on ground forces armaments. There is no percentage rule in those two categories. The maximum increase permitted would equal 30 combat aircraft and 25 attack helicopters.

Whereas it was relatively easy to achieve an agreement on the lasting modification of force levels, how to agree upon the temporary change of force levels has remained one of the most controversial. There was no doubt that there may be legitimate reasons for a temporary increase of force levels. The most obvious examples are peacekeeping operations and military exercises. No state objected to the temporary increase of force levels for the purpose of carrying out a UN or OSCE mandated peacekeeping operation where the force levels and the duration of their presence is guided by the appropriate mandate. The text of the accord means that there is no room for temporary increase on the basis of a non-UN or non-OSCE approved peace operation. Therefore neither NATO, nor the CIS, can serve as such an umbrella. It was also logical to accept that military exercises may make a temporary increase necessary. Three questions emerged in that respect: What amount of battle tanks, ACVs and artillery pieces may be introduced in a country for an exercise? What type of transparency measures shall accompany such an increase? How can one prevent such an exercise from being used to circumvent the limitation of the Treaty regarding lasting increase of territorial ceilings? As was mentioned above, some parties felt the need to retain strategic flexibility whereas others sought to constrain it. Flexibility should not undermine predictability however. No national ceiling may be exceeded due to a military exercise. This means that the national ceilings cannot increase temporarily in addition to hosting forces temporarily. The transparency measures to be adopted in the adapted Treaty require a 42 day advance notification of a military exercise that involves a temporary increase of force levels. The non-circumvention rule consists of two elements: no exercise can last longer than 42 days, if it does, the increase for the exercise will fall into another category and be regarded as a temporary

deployment; and, successive exercises cannot serve as a means to circumvent the duration limit for exercises.

The two rules mentioned above are fairly specific and unobjectionable. There might be, however, other reasons to deploy forces and treaty-limited armaments on the territory of other countries. As the grounds of such deployments are less specific, the concerns that they can be abused are stronger. Consequently, the number of pieces of armaments must be limited by the upcoming adapted Treaty. According to the accord achieved, it must not exceed 153 battle tanks, 241 ACVs, and 140 artillery pieces. It is a strict limit that is intended to not put any country's security at risk. The issue of flexibility regarding temporary deployment was one of the most divisive of the talks. Russia, which is inferior in conventional arms in Europe vis-à-vis the West and is relying exclusively on its own forces, wanted to constrain flexibility as much as possible. Thus Russia was reluctant to accept any kind of exceptional temporary deployment going beyond the one mentioned above. First, Russia recommended that NATO "renounce the very possibility of so-called exceptional temporary deployment. We do not see real security threats either in Central Europe or in the rear area, the neutralisation of which would require ... large scale deployments of forces above territorial ceilings."¹⁵ Not much later, in reaction to the determination of the West to press the issue of exceptional temporary deployments with reference to an unidentified threat, Russia was of the view that such deployments can "take place on the basis of the consensus of all participating States".¹⁶ Consensus would have provided Russia, and any other party to the Treaty, with veto power on exceptional temporary deployment. One has reason to assume that Russia knew clearly that such temporary deployment is deemed necessary by the West to face a well-defined threat, and not a highly uncertain one. It seemed impossible to bridge the gap between the different positions. In the end, the solution was provided by a compromise proposal which makes such exceptional temporary deployments possible under specific conditions; specifically, it may not exceed the territorial ceiling by more than 459 battle tanks, 723 ACVs and 420 artillery pieces. Furthermore, such exceptional deployments, when they exceed a territorial ceiling or a sub-limit, will be subject to specific transparency and verification measures. While such measures have not yet been agreed

¹⁵ Statement by Mr. A. V. Grushko, Head of the Delegation of the Russian Federation, to the Joint Consultative Group, Vienna, 15 September 1998: p. 2.

¹⁶ Statement by Mr. A. V. Grushko, Head of the Delegation of the Russian Federation for Questions of Military Security and Arms Control, to the Joint Consultative Group, Vienna, 6 October 1998: p. 2.

upon, their thrust is clear. The decision arrived at by the JCG in the end of March 1999 gives a good idea what the negotiators had in mind.

"Where, in exceptional circumstances, a temporary deployment exceeds a territorial ceiling by more than 153 tanks, 241 ACVs, or 140 artillery pieces ... on receipt of an appropriate notification a conference of the States Parties shall be convened by the Depository at which the hosting and deploying States Parties will explain the nature of the exceptional circumstances which have given rise to the Temporary Deployment. The conference shall be convened without delay but not later than seven days after the notification of a Temporary Deployment..."

In excess of the above mentioned number of ground armament. On the one hand, Russia was not in the position to prevent exceptional temporary deployments, on the other, the liberty of the West to rely on it has been curtailed significantly and the accompanying measures make the unnecessary reliance on such a measure a risky exercise.

Russia was not worried about the extensive reliance on such temporary deployments per se but about two other factors. First, it did not want to accept that different "flexibilities" be accumulated or used simultaneously by the Atlantic Alliance.¹⁷ Second, it must not be forgotten that such "temporary reinforcement" may occur simultaneously in a number of countries in each other's vicinity. For example, the U.S. could decide to reinforce Poland, the Czech Republic and Hungary at the same time due to exceptional circumstances. In this case Russia's objection was accepted. Six states took the commitment "not to make use of the Treaty mechanism for upward revision of Territorial Ceilings...". They are the four Visegrad countries, the Czech Republic, Hungary, Poland and Slovakia, as well as Belarus and Ukraine. It has been a request of the Russian Federation since the beginning of the CFE Treaty adaptation talks to establish a so-called zone of stability extending to the eastern-most members of the Atlantic Alliance as a confidence-building measure where stringent limitations will apply on national ceilings and on temporary deployments. It was hotly debated which parts of the former Soviet Union would form part of this zone in order to create a highly artificial and symbolic balance between the East and the "new West". Russia, as noted, was insistent that no part of the Russian Federation would belong to that zone, as it perceived the establishment of such a zone as part of compensation for the

¹⁷ This explanation was given for Russian objections by rear-admiral V. S. Kuznetsov, representative of the Russian Defence Ministry, at the 16 July 1998 Brussels ad hoc meeting of arms control experts. See HLTF (INV) (98)40. Annex III.

eastern expansion of NATO. For Poland, understandably, the inclusion of the Kaliningrad area was an essential precondition to the reduction of Polish military flexibility. The decision of the JCG acknowledges that the zone of stability constrains flexibility in East Central Europe in order to increase military stability. The zone will extend to the six countries mentioned above, but not to the Kaliningrad area. This is a major concession from the West, or more specifically from Poland, at the negotiations. Those countries which belong to the stability zone "have agreed not to make use of the Treaty mechanisms for upward revision of Territorial Ceilings...". Formally the Russian Federation has taken a somewhat weaker, though similar, commitment. It stated that it will not "host more than 153 battle tanks, 241 ACVs and 140 artillery pieces in excess of Territorial Ceilings and to reflect this agreement in the adapted Treaty". This means that Russia will not invoke the right to have exceptional temporary deployment and will confine itself to the form of temporary deployment which is subject to more stringent numerical constraints. One could therefore say that a major restraint was accepted by Russia as well, however, such a conclusion is premature, if not unfounded. The strategic situation of Russia is fundamentally different from those smaller countries of East Central Europe which have recently joined NATO, e.g., the Czech Republic, Hungary and Poland, or plan to join in the future, e.g., Slovakia. Russia, despite its declining military strength, is selfreliant militarily and will remain so. Consequently, when Russia declares it will not rely on exceptional temporary deployment, it does not give up anything it wanted to use. Kaliningrad is not included in the zone of stability and the Russian Federation will at best make a declaration upon treaty signature that it will practice selfconstraint and not increase its forces in the area beyond their current level.

It can be regarded a further stabilising measure that the parties will limit their armament in transit. The time of transit is limited to 42 days, of which no more than 21 days can be spent in one territorial unit, and it "will not be used as a substitute for Temporary Deployments or military exercises". Transparency measures will be developed at a later stage of the talks in order that no treaty limitation could be circumvented by transit. Only one of them has been indicated preliminarily by the decision of the Joint Consultative Group. According to it, should questions arise as to the status of treaty-limited armament in transit, any State Party will have the right to seek prompt clarification in the JCG.

2.1.2 CFE Adaptation and the Flank Problem

It is easy to get the impression that the CFE adaptation talks are conducted only in order to reflect upon the changed situation in light of NATO enlargement. A sort of a new East-West conflict seems to have taken place at the negotiating table with some major differences. The most important one, beyond the apparent change in the composition of the "groups", is that Russia is now in the position of the "demandeur". The West has been gaining conventional superiority – if this term has any relevance any longer – and it is Russia that could begin to expect concessions.

There is one reason that has significantly modified the above picture. Namely, the so-called "flank issue". Suffice it to mention that after the dissolution of the Soviet Union, the strategic situation of two successor states changed significantly in light of the fact that areas of secondary importance gained strategic significance. Ukraine was obliged to defend vast territory with few pieces of armaments on its flank and Russia had difficulties accepting that it could not station more armament in the North Caucasus adjacent to the three newly independent former Soviet republics.

Even though Western readiness to accommodate the Russian and Ukrainian request to revise the flank rule had been present abstractly, the operational change was carried out under the pressure of a number of factors. Russia, faced with imminent NA-TO enlargement, failed to conform to the flank ceilings prescribed by the CFE Treaty which it ought to have reached by the end of the reduction period (November 1995). This put NATO in a difficult situation. If the Alliance, as it had always claimed, really wanted to combine its enlargement goal with the maintenance, and even strengthening, of a co-operative relationship with Russia, then it too was dependent on finding a solution for the two related problems. A solution to the flank problem was found at the first CFE Review Conference in May 1996. The agreement reduced the size of the flank zone and permitted Russia to station 8,716 pieces of treaty-limited armament in the previous flank territory until 31 May 1999, after which 7,900 systems will be allowed – this in lieu of the 4,360 pieces originally permitted.

The so-called GUAM countries (Georgia, Ukraine, Azerbaijan, Moldova) have repeatedly expressed their dissatisfaction with certain provisions of the flank agreement. This impression is closely related to the issue of the stationing of foreign troops on the territory of these four countries. In the view of the GUAM states, the flank agreement allows Russia to station treaty-limited equipment in the flank zone of the former Soviet Union without the agreement of the affected countries. The four countries want the document to be revised in such a way as to make clear that the rights of Russia do not extend beyond its borders. For this reason, the four originally did not want to ratify the flank agreement. They finally capitulated when NATO member states argued that there is nothing in the modified flank rule which says that foreign troops and treaty-limited armaments can be stationed without the agreement - 24 -

of the affected state. In spite of the exchanges on the matter, Russian troops were, in fact, stationed on the territory of those countries.

Russia used this issue to pursue its long sought objective of eliminating the flank rule by making the following proposal:

"In this connection the Russian Party expresses its readiness to consider a possibility to ensure restraint in relation to the present levels of its conventional armed forces in the flank area ... The scope, status and duration of such provision on restraint will correspond to the scope, status and duration of provisions on limitation on overall ceilings for military alliances and on limitation and additional permanent stationing of conventional armed forces of the States Parties beyond their territories."¹⁸

Since Russia knew that the second part of the deal would be unacceptable to NATO, the first would have to be so as well – the flank rule would be invalidated in a compromise. Russia would have regained its freedom to act in the flank zone vis-à-vis the GUAM countries. Russia's assumption in connection with its proposal was that NATO enlargement was the West's primary objective and that the West would be prepared to make concessions on other issues, among them ones in which the sovereignty of some countries of second-rate strategic importance might be affected. It was interesting to see that the course of development of the talks during the 40 months has demonstrated the contrary. The West, starting out from a realistic threat assessment, was more willing to compromise on arms limitation related to the eastern enlargement of the Atlantic Alliance than on the flank issue. It had every reason for it. Namely, it was aware that a higher level of military stability has been achieved in the centre of Europe than on its south-eastern periphery. Moreover the danger that a dissatisfied east-central European country fails to ratify the adapted Treaty is not realistic. Although it is a real danger that, for example, a Transcaucasian country which does not find the adapted Treaty reassuring may block its entry into force.¹⁹ If nothing else the process of bringing the flank rule into force modified at the CFE Review Conference in May 1996 set a worrying example in this respect.

The West, primarily the US, tried to avoid giving the impression that it was ready to see Russia with a free hand in the CIS. The US Secretary of State, at a meeting of

¹⁸ The notification of the Russian Federation to the Delegations of the States Parties to the Treaty on Conventional Armed Forces in Europe, 15 May 1997, Points (B), (C), (D): pp. 2-3.

¹⁹ The adapted CFE treaty will in all likelihood enter into force under the same conditions as the treaty signed in November 1990. Namely, entry into force requires that each state party to the treaty deposit its instrument of ratification at the depository, the government of the Netherlands.

NATO foreign ministers, said that Western CFE policy would have to be based on two principles: "First, we must not take any step in CFE that would undermine NA-TO's ability to fulfil its future commitments, prejudice its political evolution, or relegate any future members to second class status. Second, any CFE agreement must take into account the interests not just of NATO's 16 allies or any individual country, but of all 30 CFE states."²⁰ Here, Albright formulated the central dilemma facing the Alliance and, in particular, the United States, with regard to the CFE process: on the one hand, to ensure the effective functioning of NATO as a collective defence organisation; on the other, to improve the general security situation in Europe.

The decision of the States Parties to the CFE Treaty reached on 23 July 1997, concerning certain basic elements for treaty adaptation, stipulated that the Parties agree that the substance of Article V of the Treaty, as modified by the first CFE Treaty review conference, will be maintained – but reconciled with the structure of the adapted treaty. It was the Western interpretation of this rule that the territorial scope and the numerical limits will not be revised in the adaptation process. Russia, on the other hand, concerning "the security of each State Party is not affected adversely at any stage" has been determined to reopen the debate on the flank. It is known that Russia, at best, wanted to drop the flank rule in order to regain flexibility. This might be acceptable to some western countries but certainly not to the flank states of NA-TO: Turkey, Greece and Norway. Furthermore, it has always been highly unlikely that some GUAM states would sign an adapted treaty without the flank rule.

The fact that Russia put a clear emphasis on the flank issue during the recent phase of the talks is a clear indication that Russian strategic planners have made a realistic assessment of the international security environment. Despite anti-NATO enlargement rhetoric, they are well aware that the threat does not stem from East-Central Europe. Instability in the south of Russia, adjacent to the three newly-independent former Soviet republics in the Caucasus, should be much more worrying militarily. In the end, Russia argued for military flexibility in order to provide for its national security and territorial integrity. It seems impossible to attain this goal either under the current or an adapted CFE Treaty. No revision of the Treaty, acceptable to all of the 30 parties, was possible under the conditions required by Moscow.

The negotiations on the flank rule faced a stalemate for a long while. There existed too many perceived mutually-exclusive vital interests at stake on the southern flank.

²⁰ Secretary of State Madeleine Albright, Remarks to North Atlantic Council Ministerial Meeting, Sintra, Portugal, 29 May 1997. In: U.S. Information and Texts, 4 June 1997: p. 12.

The compromise eventually achieved changes the modified flank rule cosmetically only. The flank rule is thus not dropped, and the only Russian pieces of armaments which have been exempted are in one of two repair facilities in the flank area. The suspicion of the West that the significant number of pieces of armaments at those facilities might be used for circumvention disappeared overnight after Russia extended an invitation to the negotiating partners to visit the facilities. Following the visit, Western inspectors no longer suspected that the pieces of armaments at those facilities represented any military value.

The stalemate was solved in a deal agreed upon by Turkey and Russia.²¹ According to the agreement there will continue to be one single sub-limit for the flank zone of Russia, i.e. the "cap" on the southern and the northern flank remains combined. Russia may retain 2140 ACVs on its territory in the revised flank zone, less than agreed upon in the flank rule as modified at the 1996 review conference, whereas the number of its battle tanks and artillery pieces remain unchanged (1300 and 1680 pieces, respectively). No extraordinary temporary deployments will be permitted on the flank in order to avoid an increase in the ability of any state party to prepare for offensive operations leading to potentially threatening or broader and concurrent build-up of forces within the framework of the Treaty.

The so-called GUAM states could declare victory; deployment of Russian forces on their territory can take place only with the free²² consent of the host states. The fundamental principle of stationing is the consent of the host State to the size, location and duration of foreign military presence. Thus, agreement is to be achieved on the configuration and consequent reduction of Russian forces in Georgia and of the withdrawal of Russian forces from Moldova. Even though no agreement has been achieved concerning the unaccounted for pieces of armaments (most notably present in Armenia) there is reason to assume that the flank rule will no longer block progress towards an adapted Treaty.

²¹ The full text of the accord was not made available. A page and a half long summary was provided to other NATO member countries at an HLTF meeting in early 1999. The agreement was reached between the two states on 25 January 1999.

²² It is interesting that the Russian-Turkish accord of January 1999 speaks about the free consent of the host state whereas the March 1999 decision of the JCG mentions consent only without reference to its free expression.

2.1.3 Prospects of the CFE Process and Its Possible Extension

The CFE Treaty and the talks on its adaptation are important, although not core, elements of the post Cold War European security order. They have no decisive bearing upon Europe as most problems of the continent are not affected by conventional arms control. The adaptation talks and the implementation of the Treaty in force may serve as a barometer of the political climate in Europe and are important as such. Following the first post Cold War enlargement of the Atlantic Alliance to the east, it would have been impossible to maintain the former structure of the CFE Treaty without the prospect that it will be replaced by a new arrangement in the foreseeable future. Russia thus had reasons, or at least pretexts, to urge the other parties to the Treaty to conclude the talks at least by a politically binding commitment before the accession of three states to NATO in March 1999. According to Moscow, the enlargement of the Alliance

"endangers the present CFE Treaty built on the principles of maintaining balance of forces between the two groups of States Parties. If the new members of NATO do not declare their accession to the group of ... (NATO) countries, and exceed this group's quotas on armaments and equipment, the whole system of balances, which makes the basis of the CFE Treaty, will be disrupted and its group mechanisms will be undermined. Because of the specifics of the Treaty provisions the Russian side's right to conduct inspections on the territory of the new members of NATO to the same extent as on the territory of the other members of the Alliance, will be impaired. All this will put under question the very existence of the present CFE Treaty. This kind of developments bear a threat to the security interests of Russia, because it undermined the viability of the CFE Treaty. Given the fact that the key problems of the adaptation are not resolved, the Russian side will be obliged to take appropriate measures to secure its interests ..."²³

This Russian statement contains a mix of fiction and reality. The CFE Treaty codifying parity of two groups has been inadequate since the dissolution of the Warsaw Treaty and that of the Soviet Union. Those two developments ended the "balance" of conventional forces in Europe irrevocably. The category of balance cannot be interpreted among the current European state actors. This situation has no doubt been further complicated with the enlargement of NATO. As the Treaty has functioned

²³ Statement by the Spokesman of the Ministry of Foreign Affairs of the Russian Federation, 7 January 1999.

relatively well for several years in an environment fundamentally different from the time it had been concluded there was no reason to tie its fundamental revision with the entry into force of the NATO accession protocols on 12 March 1999. The political accord of the parties agreed upon in the end of March 1999 is a timely answer to the need to modernise the Treaty. It reflects a reasonable compromise and serves as solid ground for an agreement on an adapted Treaty. It is a precondition paving the way for further arms control measures in Europe. These broader repercussions, including possibly future NATO enlargement, make the Treaty adaptation process an asset of European security.

The most severe problems were caused by those parties to the Treaty whose security interests are not confined to one theatre of military operations but act on "multiple chessboards". The United States seems to be willing to accept that in case a sudden major deterioration of relations between Moscow and the "new" NATO takes place, the new members, and later the members joining in the second and the third waves, could be appropriately defended by allied, and overwhelmingly U.S., reinforcements, or at least any threats could be deterred. The possible massive reinforcement of land forces, supplemented by a largely unlimited reinforcement of air force²⁴, has understandably upset Russia which has "accepted" NATO enlargement in political terms but does not want it to be followed by a massive military build-up close to its borders. The U.S. may have adapted a tough attitude at the talks in order to have enough room for concessions later.

The compromise that demonstrates the success of all the 30 parties involved in the adaptation process, is important in two respects: first, the opening of the CFE regime to countries which did not belong to either alliance in 1990 when the treaty was signed; and second, the continuation of arms control under the Dayton agreement extending to countries adjacent to those three former republics of Yugoslavia (Bosnia, Croatia, Serbia) which are directly affected by the limitations. These wide ranging repercussions underline the centrality of the CFE Treaty for the future of arms control in Europe.

As NATO, at its Madrid summit of July 1997, invited (only) three former members of the Warsaw Treaty to join the Alliance, there was no urgency to deal with the status of any future NATO member which has not been party to the CFE Treaty. Had

²⁴ There is no regional limit on air force equipment (combat aircraft and attack helicopters) in the treaty currently due to its high mobility and there has been strong and successful opposition in the West during the adaptation talks to introduce one in the adapted treaty.

any country which was not party to the CFE treaty (e.g. Slovenia or any of the three Baltic states) been invited to join the Atlantic Alliance, the question of accession would have been much more pressing. As the first invitations will not be followed by a second wave of NATO enlargement any time soon, there is no urgency to address this matter. According to the December 1996 Lisbon mandate, the adaptation talks have to result in a Treaty that makes accession of other European states possible. An adapted Treaty based on a combination of national and territorial ceilings may be conducive to accessions later, even if the participating states were too heavily loaded by their current adaptation problems to pay attention to longer term issues. Some countries, like the Baltic states, have already indicated their readiness to join the Treaty, whereas others, like Austria, have not found any reason to revise their status of non-participation. There is not much added strategic value in the accession of some of these militarily weak countries. It may be more important to involve them in an evolving European arms control regime. The situation would of course be different if the CFE regime could be extended to countries with significant conventional armed forces, like Serbia and Croatia. For the time being, a special arms control regime extends to those countries which, through the reductions agreed, may help the later integration into the adapted CFE. This will mean that the "technical" conditions will have to be created for the opening, as well as redrafting the system of on-site inspections. This will be a demanding task of the negotiators in the months to come.

It is reassuring that the political basis for an adapted Treaty could be approved at a time when the tension between Russia and the West had increased due to the Kosovo crisis and NATO's involvement and "unilateralism". The Russian legislature has tended to postpone ratification of pending arms control agreements when it is dissatisfied with conflict resolution. The crisis around Iraq became the main reason, or pretext, to postpone the ratification of START II by the Duma. The Kosovo crisis, with its lasting repercussions, may mean the same for CFE adaptation. Thus, the fate of the adapted Treaty will not be decided by the success of the drafting exercise alone, it will also depend on the broader developments in Europe.

2.2 The Fragmented System of Arms Reductions in Europe

During the last summit meeting of the CSCE in Helsinki in 1992, the participating states had certain illusions concerning the establishment of a collective security arrangement. Accordingly, they took the ambitious objective to harmonise arms control commitments in Europe. In our particular case, this process seems not to have taken shape yet and there are grounds to argue that if it does take place it will remain a formality. Extending the limitations of the CFE Treaty to former neutral and non-

aligned countries will only affect the arsenal of those countries which are already subject to conventional arms limitations.

An important question is what type of conflicts will emerge in Europe in the coming years. The experience of the first decade of the post East-West conflict era has clearly demonstrated that the primary danger is not a major war with the participation of several European countries but rather domestic conflicts based on ethnic clashes or the desire to exercise the right to self-determination. If these types of conflicts continue in the future, then consideration must be given to the type of arms control measures which can make a relevant contribution to reducing the dangers of such conflicts. The further reduction of major categories of conventional armaments limited by the CFE Treaty does not affect these conflicts since they are not primarily fought with such weapons. Furthermore, even when heavy armaments are employed they are used in limited amounts which number reductions would not affect. The limitation and reduction of such categories of armaments, which are used in civil wars, cannot be adequately verified.

Arms control predominantly deals with the limitation of arms in interstate relations. The question remains therefore, can its means affect domestic conflicts. If severe constraints are introduced on the calling of reservists and if ammunition and weapon storage facilities are monitored by an international accord, the impact on domestic conflict is marginal. However, if a government has to choose whether to honour such constraints or maintain the unity of the country at the price of violating them, the leadership will opt for the latter. This means that as long as a conflict remains limited to the territory of one country, arms control has little relevance. It is more important that the international community has a set of options that can influence a government involved in a domestic conflict. Nevertheless, arms control can be instrumental in preventing the escalation of domestic conflicts to neighbouring countries.

A number of conflicts in Europe and elsewhere demonstrate that arms control may have a relevant contribution to make in post conflict situations. It can help to stabilise the regional balance among the parties and limit the means of conflict if the parties return to violence. Such post conflict arms control measures are understandably tailored to the conflict region but may lead to the fragmentation of European conventional arms control. However, one has to take a fresh look at the problem. Even a fragmented arms control structure provides better service to European security than the ideal of a harmonised, though largely irrelevant, pattern of arms control.

Under the Dayton agreement two arms control accords were agreed upon. The first, a confidence-building measure, which is a fairly weak non-innovative remake of the

Vienna CSBM document; the second, a somewhat later-adopted agreement on the limitation of conventional forces that extends to the five weapon categories which are also subject to the CFE Treaty. The objective is to create a balance of forces; first, among the former warring parties both inside and around Bosnia, and later, with the neighbouring countries. The successful implementation of the first phase of the accord, in spite of the implementation irregularities on the side of Republika Srpska,²⁵ is to be followed by the second phase that should extend to the neighbouring countries. Some of them are parties to the CFE Treaty and will certainly be reluctant to accept reductions beyond their commitments under the CFE. This is one way how the pending Treaty adaptation may have direct relevance for related arms control regimes.

3 GLOBAL ARMS CONTROL IN THE CONVENTIONAL FIELD?

Whereas the relationship of global and regional processes in arms control has been evident and recognised in the case of weapons of mass destruction, conventional arms control has been dominated by regionalism and the outstanding role of Europe. The idea to spread conventional arms control from Europe to other regions has remained largely unsuccessful. Sporadic efforts, like confidence-building measures in the Mediterranean, have not come to fruition, yet. In some regions there is no need to achieve regional arms limitations, the incentive is missing, in others it is largely impossible to find the necessary similarity to apply experience accumulated in Europe.

There are two issue areas which have to be touched upon briefly: first, recent global initiatives; and second, conventional arms transfers.

The end of the East-West conflict and the absence of an existential conflict in the industrialised world has led to calls to reduce the threat of such weapons which create extensive and massive human suffering. The limitation or ban of weapons which kill, (contrary to that of more esoteric and less used armaments), now motivates the public. NGOs carry through initiatives which may end up with commitments difficult to verify. This happened with anti-personnel land mines and may happen with certain categories of light weapons in the future. It is important to see to what extent the international community has relinquished arms control requiring the stringent verification which applied until the end of the East West conflict.

²⁵ There is only sporadic literature on the topic. See McCausland, Jeffrey D. Arms Control and the Dayton Accords. In: European Security, Vol. 6, No. 2 (Summer 1997): pp. 18-27.

Even though the end of that conflict represented a serious challenge for trade of conventional weapons, and thus created unfavourable conditions for constraining arms transfers, the UN General Assembly ended the decade-long debates by adopting two resolutions on international arms transfers and on transparency in armaments, respectively.

The former one calls upon all states to give priority to eradicating the illicit trade in all kinds of weapons and military equipment and urged members of the United Nations to exercise effective control over their weapons in order to prevent them from getting into the hands of those engaged in the illicit arms trade. The idea of isolating countries engaged in exporting arms to countries under embargo or supplying arms to terrorist groups is commendable. The question is whether reliable information can be collected about such activities and whether appropriate enforcement measures can be directed against the country violating the rules. In addition, whether the global community can rely upon the intelligence gathering activity of a strictly limited number of countries in formulating its judgement.

The latter one established a universal register of conventional arms. According to the original idea, it would have extended to arms exports in the relevant armaments categories and invited the member-states to report on their export of the preceding year. In a last minute proposal tabled by Egypt on behalf of several countries, the register was extended to include information on military holdings, procurement through national production and relevant policies. The argument was put forward that without such broadening of the register's scope, the necessary transparency cannot be provided since less information will be available about countries relying heavily on genuine arms production than about ones dependent on imported arms. The register embraces seven categories: battle tanks, armoured combat vehicles, large calibre artillery systems, combat aircraft, attack helicopters, warships and missile systems. The first five are identical to the treaty-limited armaments and equipment categories of the CFE Treaty supplemented by the two other large weapon categories. It is open to question whether the international community is ready for a global legally-binding regulation in this area or, as it seems to be the case, do not want to give up the sovereign prerogative concerning arms export. Currently the system is based on national legislation that in many democracies clearly bans arms export to crisis zones, to rogue states, and to countries involved in international terrorism. Recently, the European Commission established similar rules. Regional efforts were criticised by some leading countries of the developing world, like India. On the other hand, there does not seem to be a consensus for a global legally binding conventional arms export control regulation either.
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TACKLING THE PROBLEM OF ANTI-PERSONNEL LAND-MINES: ISSUES AND DEVELOPMENTS

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The old adage "a week is a long time in politics" could aptly be applied to the meteoric rise of the anti-personnel landmine (APM) issue to the top of the international diplomatic agenda in 1997. Only someone with truly superior powers of analysis and prediction could have foreseen in September of 1995, at the start of the first Review Conference of the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (the CCW or Inhumane Weapons Convention), that the APM issue would gain such importance that in only two years time a completely new international agreement actually banning this whole class of weapon would be completed.

The Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and their Destruction (hereafter, the Ottawa Convention), completed in Oslo in September of 1997 and signed by more than 120 countries in December of that year in Ottawa, entered into force on 1 March 1999. For a major international treaty, this was a remarkably short period of time, especially considering the large number of ratifications (40) required by the Convention for entry into force. Since December 1997 major efforts have also been made to put into place mine action programmes to significantly increase global capacity in mine clearance, mine awareness and assistance to persons and regions affected by mines, with the intention of making early progress in ameliorating the conditions caused by the wide diffusion of APMs in the world.

How can we explain this degree of focused attention by the international community on an issue little appreciated publicly as recently as five years ago? What factors made it possible to take the step to ban a whole class of weapon which has been part of the defensive arsenals of militaries for decades and which continues to be seen by some as essential? What are the prospects in the short to medium term for real progress on the global APM problem? What factors will affect this progress? This brief paper will attempt to provide some insights into these important questions.

1 FACTORS IN THE EMERGENCE OF THE LANDMINE ISSUE

Despite its fairly recent emergence as a focus of international political attention, it would not be accurate to argue that the terrible legacy of the widespread use of landmines was unappreciated before. The problem of the indiscriminate use of landmines had long been recognised. This can be seen in the fact that certain proscriptions and limits on their use had already been defined under the 1980 CCW in its Protocol II on "Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices". This Protocol specifically prohibits the use of mines against civilians in international armed conflicts as part of the overall contribution to international humanitarian law intended by the CCW. However, the existence of Protocol II, in fact, had had very little impact on the actual behaviour of state actors, the majority of whom remained (and remain) outside the CCW, to say nothing of the behaviour of non-state actors.

What changed in the early 1990s which enabled the terrible reality of the global landmines problem to become visible, the inadequacy of the 1980 CCW Protocol II to become understood, and the landmines issue to move from one defined nearly exclusively by humanitarian response to victims to one demanding binding limits on the employment of such weapons, even to the point of an international ban on production, stockpiling, transfer and, most importantly, use of anti-personnel landmines?

Like the larger class of light weapons to which anti-personnel landmines belong, in the period of the Cold War such weapons were not seen as threats to security requiring concerted efforts at multilateral control. APMs were understood to be purely defensive weapons. International efforts at arms control and disarmament were focused elsewhere. It was only with the easing of the Cold War that the full dimensions of the use of landmines in conflicts in many parts of the world, many of them "proxy" wars of the Cold War itself, could begin to be fully appreciated. The effects of the millions of mines remaining in such conflict zones as Afghanistan, Mozambique and Cambodia on the lives of individuals and on the prospects for economic and social recovery from war of whole regions was better able to be seen as the world ceased to be defined in traditional Cold War terms. The seemingly uncontrolled diffusion and use of APMs against civilians in the growing number of conflicts of the 1990s, most of them internal, further strengthened the view that this was a problem requiring greater international attention and action. However, the impetus behind the growing attention to the landmines problem and the calls for action came largely from the perspective of this as a humanitarian issue and not as a traditional military security issue. It was only as it became increasingly obvious that real action to reduce the number of civilian casualties caused by landmines and to ameliorate their economic and social impact would require steps beyond the generally defined limits on their permitted use by militaries, as outlined under Protocol II, that the necessary disarmament dimensions of controls on the use of antipersonnel landmines began to be understood. Some governments began to more greatly appreciate the importance of the landmines problem as their own troops encountered them as members of the growing number of UN peacekeeping operations of the early 1990s. Humanitarian and development organisations in the early 1990s began to argue that there simply was no solution so long as APMs continued to be laid by the millions; banning their production, stockpiling, transfer and use was required if the human impact of this "weapon of mass destruction in slow motion" was to be reduced.

It is important to note that what eventually turned into a global campaign to ban landmines began from the work that many non-governmental organisations were doing in regions of the world heavily affected by conflict.¹ Work with mine victims and with communities whose recovery from war was made difficult because of the presence of mines led these organisations in the late 80s and early 90s to increasingly raise this issue in the minds of the public and with policy makers. These organisations were to join forces in the early 1990s in the form of the International Campaign to Ban Landmines (ICBL). In the early 1990s the International Committee of the Red Cross also began to document the dramatically high number of civilian mine victims and to work with their national Red Cross and Red Crescent Societies and the incipient ICBL in raising public awareness of the devastating effects of these weapons and to press for an end to their use.

The emerging movement – to publicise the reality and extent of the landmines crisis, to investigate and expose those states and companies producing and transferring

Detailed analysis of the role of civil society in the international efforts to deal with the APM problem is beyond the scope of this paper. However, NGOs as factors in the shaping of international security policy is an issue of considerable importance, with the APM experience providing a useful laboratory. See, for example, Atwood, David C. Die internationale Kampagne zur Ächtung von Landminen – Überlegungen zur Rolle der Zivilgesellschaft. In: Merkel, Christine M. (Hg.). Friedenspolitik der Zivilgesellschaft: Zugänge – Erfolge – Ziele. Münster, 1998: S. 250-266; Price, Richard. Reversing the Gun Sights: Transnational Civil Society Targets Land Mines. Department of Political Science, University of Minnesota, 1998 (unpublished manuscript).

APMs, to stigmatise the further use of this insidious weapon by states and non-state actors alike – took the shape of national coalitions of pro-ban organisations, national and international media campaigns, international conferences, petitions, lobbying, and many other actions. This resulted in a growing number of governments in the early 1990s taking unilateral action to put moratoria on or end their own production, transfer, stockpiling and/or use of APMs and a number to support a global ban, a pattern which accelerated after 1995. It also resulted in the French government agreeing in 1993 to call for the holding of the First Review Conference of the CCW to review Protocol II. The approaching CCW Review Conference obliged international organisations, governments, the ICRC, and NGOs alike to give focused attention to, and develop strategies for affecting the outcome of the Review Conference.

2 FROM VIENNA TO OTTAWA

Despite the growing international attention to the APM issue, it became clear in the preparatory meetings in 1994 and 1995 for the Review Conference that, however strong some voices were for an outright ban on APMs and despite the unilateral steps that a number of states had taken, there would be little possibility in the Review Conference itself for much more than a modest strengthening of the existing Protocol II. Not only was it clear that military arguments for the retention of APMs as an essential element of defence capacity would weigh heavily in the considerations of States Parties, whatever the humanitarian issues, but also the practice of the Review Conference itself in requiring decision by consensus virtually guaranteed that any changes which the Review Conference could accomplish would be reformist rather than revolutionary.

The Review Conference failed to complete its business in the allocated three weeks, due both to the strength of pressure for more dramatic action on APMs and to the strong resistance to any substantial changes to the existing Protocol II by a number of States Parties. The Review Conference was forced to reconvene in January 1996 and again in April/May, the intervening time enabling an even greater mobilisation of public awareness and pressure over this issue. This further mobilisation, although it failed to substantially influence the results of the Review Conference, was very important in strengthening the commitment of some governments to pressing for further international action beyond the Review Conference.

The negotiations for the amending Protocol II did result in the strengthening of the existing Protocol in a number of important ways. Protocol II as amended extends the scope of the Protocol to the use of APMs in non-international conflicts; lays the

responsibility for the clearing of mines at the end of hostilities on those who lay them; requires that all APMs be detectable and prohibits the use of any mines that are designed to detonate as a result of the use of electromagnetic mine detectors; prohibits any transfer of non-detectable APMs as well as the transfer of any type of mine to non-state entities; restricts the use of long-lived or "dumb" mines to marked, guarded and fenced minefields and requires that any other manually emplaced or remotely delivered APMs have effective self-destruct and self-deactivating mechanisms; and provides stronger rules for the protection of international humanitarian workers from the effects of APMs.

But the results of Protocol II amendment negotiations also can be interpreted as a step backward in at least two important ways: 1) by, in effect, endorsing the use of a new type of anti-personnel landmine, the self-destructing/self-deactivating, or "smart", mine, and 2) by introducing a new definition of anti-personnel landmine as mines which are "primarily designed to be exploded by the presence, proximity or contact of a person". The use of the word "primarily", said critics, could be used to argue that the Protocol does not apply to other types of mines which, nevertheless, function and are used as APMs. The long-transition time for implementation of some of the key provisions of the Protocol was also seen as greatly weakening the potentially positive impact of some of the provisions of Protocol II as amended. The fundamental weakness, however, was seen to be the complexity of the agreement, which would make compliance, particularly by non-state actors, less likely. As has been noted by the International Committee of the Red Cross, "The provisions drafted were extremely complex and many doubted whether they would or even could be effectively implemented in most situations of armed conflict. Few believed that the amended Protocol would be sufficient to reduce the number of civilian landmine casualties."2

Because of the consensus rule of the Review Conference, this was the best that could be achieved. But it was a very disappointing result for many, including many of the governments who had nevertheless agreed it. The final session of that Review Conference saw many governments openly condemn the results as too little. The then Secretary General of the United Nations, Boutros Boutros-Ghali, in a message to the closing session of the Review Conference, took the unprecedented step of expressing

² Banning Anti-personnel Mines: The Ottawa Treaty Explained. International Committee of the Red Cross, 1997: p. 4.

his "deep disappointment" that the limited progress achieved in the Review Conference had fallen so far short of what he had hoped for.³

Nevertheless, Amended Protocol II stands as a benchmark in two important senses. Its limited success can be seen to have spurred disappointed governments and NGOs to press on for further action, which resulted in the 1997 Ottawa Convention. In addition, its existence and the CCW as a whole are also necessary reference points for the future of global attempts to deal with the APM problem, a subject to which we shall return later.

In May 1996, despite the disappointment of some States Parties with the results of the Review Conference, it was not at all clear that a separate treaty process outside the CCW was the obvious or even desirable way for the international community to be able to get beyond the limited contribution of Amended Protocol II to effective global action on the landmine problem. Although Canada had announced at the end of the Review Conference its intention to invite those "like-minded" States and concerned organisations and agencies who wished to see a total ban on anti-personnel landmines to Ottawa in the autumn for an International Strategy Conference, even many of those self-selected 50 States that chose to attend the "Towards a Global Ban on Anti-Personnel Mines" conference in October, were stunned by the challenge Canada's Foreign Minister Lloyd Axworthy put to the participants at the end of the Conference, to return to Ottawa in late 1997 to sign an actual APM ban treaty.

3 PERSPECTIVES ON THE OTTAWA PROCESS⁴

What followed the charge issued by Canada is the stunning "fast track" process which has become known as the Ottawa Process. The Ottawa Process, that series of consultations, conferences, lobbying and public campaigning which took place between October 1996 and December 1997, enabled the Axworthy challenge to be successfully met before the end of 1997.

³ UN Document CCW/CONF.I/SR.14, 3 May 1996: pp. 6-7.

⁴ For a fuller analysis of factors in the success of the Ottawa Process, based on responses to survey instruments with governments, international organisations and non-governmental organisations at the time of the Ottawa Mine Action Forum in December 1997, see Lessons Learned from the Ottawa Process, DFAIT/IDA, Ottawa, 1998. See also for a range of analyses of the Ottawa Process: Cameron, Maxwell A.; Robert Lawson; Brian W. Tomlin (eds.). To Walk Without Fear: The Global Movement to Ban Landmines. Oxford, 1998.

It is beyond the scope of this paper to trace the steps of this process. But before analysing further the actual accomplishments of the Ottawa Convention and post-Ottawa needs and directions, it seems important to take note of some of the factors which were important to the success of what was perceived, even well into 1997, as a fairly risky strategy.

Once it was clear that any approach to the landmines issue short of an actual ban was unlikely to make a substantial impact on the problem of civilian landmine casualties, there were really only three choices. The first – press for the early entry into force of Amended Protocol II while working towards a stronger further revision at the next Review Conference in 2001 – was never really championed, although increasing the number of States party to the CCW and to Amended Protocol II remains an important element in the strategy for strengthening controls short of a ban by those States yet unwilling to end their own use of APMs. But the post-CCW Review Conference disappointment and the growing public pressure for greater action on the issue really eliminated this approach as a viable option. The strongly supported UN General Assembly Resolution 51/45S of December 1996, which urged States "to pursue vigorously an effective, legally-binding international agreement to ban the use, stockpiling, production and transfer of anti-personnel landmines with a view to completing the negotiation as soon as possible," further pointed the way to earlier, more dramatic steps.

The other two choices were, therefore, to take the issue to the Conference on Disarmament or to take the "fast track" approach via a separate treaty process, as called for by Canada. The choice was stark. Each had its strengths and weaknesses. Because what was being proposed was an actual ban on production, stockpiles, transfers, and use, what had been largely a humanitarian law approach to control took on elements more traditional to arms control and disarmament processes. Hence, what more logical place to go than the "single, multi-lateral disarmament negotiating body", the Conference on Disarmament (CD)? A number of key States that had in fact been in Ottawa and were on record as favouring stronger international action on APMs – such as the United States, France, the UK, Australia and Finland – argued strongly for this course, and, as will be noted below, continue to see the CD as having an important role to play in the post-Ottawa phase of international action on APMs. How else to bring on board the major producers and users of landmines? Where better than the CD, with its expertise in negotiating complex arms control and disarmament agreements, including important verification provisions, to do this job?

But how could the CD be expected to do this job, critics argued, when many of the very States that had played such an obstructionist role in the CCW were themselves

present in the CD and when the CD itself did not include many of the States most affected by landmines? Wouldn't the CD inevitably suffer the same problems of the CCW Review Conference negotiations, due to its practice of deciding by consensus? Better to get an early international ban agreement with whatever States could be convinced to join it initially than to see this critical humanitarian issue get bogged down in years of negotiations, even assuming a negotiating mandate could be achieved in the CD in the short run. By self-selecting participation in the process and by deciding not to seek a "lowest common denominator" consensus-based approach, it was argued, a strong international norm could be achieved, which currently reluctant States could join later.

But what value would such an agreement have if key States remained outside the agreement, CD advocates retorted? And so the debate went on right into nearly mid-1997 (and continues in some form even to the present moment, as will be shown be-low). Eventually it was the degree of public support which activists behind the Otta-wa Process were able to achieve in the early months of 1997 and the inability of the Conference on Disarmament to move on this issue which swung the momentum strongly in the direction of the separate treaty process by mid-year, to the extent that 91 States were prepared to take part in the negotiations in Oslo in September, and by December, 122 were prepared to sign the Ottawa Convention.

It was not necessary for those States which were strongly supporting the Ottawa Process to actively oppose action in the Conference on Disarmament. This would have been politically difficult for them to do, as they could be accused (and nevertheless were) of undermining the functioning of a critical international disarmament institution. But politics in the CD did the job for them. The introduction of the APM issue into the CD programme of work debate in early 1997 caused consternation and mistrust. It further complicated a debate in the CD, in the aftermath of the successful completion of the Comprehensive Test Ban Treaty negotiations the year before, over what the programme of work of the CD should be. In addition, some asked why, when this had never previously been considered an important issue to be taken up by the CD, should some be so strongly now advocating that it was central to its work? Was this not just a further way of diverting attention away from what some considered the central issue for the work of the CD, nuclear disarmament? Was the suggestion that the CD take up this issue not simply a disguised way of de-railing the move for an APM ban, something which many States clearly did not yet favour whatever their rhetoric in the General Assembly? These debates are mentioned in this abbreviated form here only to indicate some of the factors which hampered any role for the CD on landmines in 1997 and to flag features which continue to be elements in the

ongoing debate about whether the CD should even now have a role to play on landmines.

But the failure of the more conventional process, the Conference on Disarmament, to move swiftly and effectively in the post-CCW environment to take up this issue would not in and of itself explain why the only other realistic choice, a separate treaty process, succeeded. A number of other factors appear to have been of major importance in this success. Most important among these was the way the Ottawa Process was fostered and led by a unique combination of "core group" States, the ICRC, and non-governmental organisations, principally in the form of the International Campaign to Ban Landmines, often closely co-ordinating their work and certainly sharing a common goal of a total ban treaty. The ICRC and ICBL member organisations, with long experience in working in mine affected regions and with mine victims, had been central in getting the APM issue onto the international agenda, as has been noted earlier in this paper. Their activities, combined with the determination of a handful of States prepared to take the risks associated with this unconventional path towards a new convention, proved to be a critical alliance. The very short year between Ottawa and Oslo was characterised by a strategic series of international meetings and regional conferences designed to build commitment and confidence in what could be achieved by a landmines ban convention.

The importance of the role the "core group" could play was enhanced by the fact that it was cross-regional in make-up, hence overcoming one of the factors currently slowing business in the Conference on Disarmament, its group structure. The "core group" remained ad hoc and functional in its approach. Made up of a range of States – including Canada, Philippines, South Africa, Mexico, Switzerland, Norway, Austria and Belgium – different ones undertook different responsibilities in their own region and beyond. For example, Austria provided the lead in the drafting of what eventually emerged as the text of the new Convention; South Africa strongly supported regional activities designed to bring governments in Africa on board, Africa being the most heavily mine-affected region in the world.

In addition, the Ottawa Process was an "opt-in" process from the time of the original Ottawa strategy conference in1996 right through to the final negotiations in Oslo. For example, the "ticket" to the Oslo Diplomatic Conference was basically for governments to be on record as being in agreement with the terms of the Final Declaration of the Brussels Conference, held in June of 1997, in which the States present affirmed that an effective, legally binding international agreement banning APMs should include: a comprehensive ban on the use, stockpiling, production, and transfer of anti-personnel landmines; the destruction of stockpiled and removed

anti-personnel landmines; and international co-operation and assistance in the field of mine clearance in affected countries, and affirmed their objective of "concluding the negotiation and signing of such agreement banning anti-personnel landmines before the end of 1997 in Ottawa."⁵ As an essential part of this, the consensus rule was dispensed with. At the Oslo conference, while no votes were in fact taken, the agreed procedural rule that a vote could be taken and, if taken, a two-thirds vote would carry, effectively eliminated the possibility that a small minority could hold back progress.

It may well be that the Ottawa Process will herald a useful path for future arms control negotiations. The cross-regional "core group" process, the leadership of key "middle" powers, the strategic collaboration between governments and NGOs, the global organising capacity of the International Campaign to Ban Landmines, the movement away from the consensus rule, the emphasis on regional steps – all these are ways in which Ottawa Process succeeded in moving an international concern within a very short period of time from near stalemate to a new international agreement enjoying broad support. Certainly some "lessons" from this experience will be useful to the future.

But it is important to remind ourselves of one factor which also probably facilitated this way of working, a factor which may be less present in other weapons control initiatives in the future. APMs are, even from the perspective of those who most ardently defend their continued possession, weapons of relatively minor importance from a military security perspective. Their actual military utility has also been seriously challenged, even by military personnel.⁶ This made it easier for the primacy of the humanitarian costs over military importance to be accepted by many governments. This meant also that it was possible, in the actual negotiation of the Ottawa Convention, to accept less stringent verification provisions than are usually insisted upon in disarmament agreements. The lesser importance of this weapon system from a military point of view also probably made it easier for some of the key "core group" States to take independent action on this issue. For example, quite differing positions among key NATO allies and EU partners have been possible over APMs

⁵ Final Declaration: Brussels Conference on Anti-Personnel Landmines, 24-27 June 1997.

⁶ See, for example, the findings reported in Anti-Personnel Landmines: Friend or Foe? International Committee of the Red Cross, 1996.

without threatening those relationships fundamentally, as would possibly be the case with weapons of perceived greater importance.⁷

4 THE OTTAWA CONVENTION CONSIDERED: STRENGTHS AND LIMITATIONS

This paper will not attempt a detailed description of the provisions of the Ottawa Convention⁸. However, a few comments on what has been added by this Convention seem appropriate. Similarly, it is important to point out some of its limitations.

The opening paragraph of the Preamble to the Ottawa Convention clearly states the intended purpose of the Convention: "[The States Parties,] Determined to put an end to the suffering and casualties caused by anti-personnel mines, that kill or maim hundreds of people every week, mostly innocent and defenceless civilians and especially children, obstruct economic development and reconstruction, inhibit the repatriation of refugees and internally displaced persons, and have other severe consequences for years after emplacement."

The final paragraph of this Preamble further emphasises this purpose by justifying the provisions of the Convention in existing international humanitarian law: "Basing themselves on the principle of international humanitarian law that the right of the parties to an armed conflict to choose methods or means of warfare is not unlimited, on the principle that prohibits the employment in armed conflicts of weapons, projectiles and materials and methods of warfare of a nature to cause superfluous injury or unnecessary suffering and on the principle that a distinction must be made between civilians and combatants."

The Convention sets out to eliminate the anti-personnel mine as a weapon of war and terror by prohibiting their development, production, stockpiling, transfer and use, including so-called "smart" mines so recently legitimised under Amended Protocol II. Under the "general obligations" outlined in Article 1 of the Convention, each state party undertakes "never under any circumstances: a)to use anti-personnel mines; b)to

⁷ For one view of the Ottawa Process and international security considerations, see Beier, J. Marshall; Ann Denholm Crosby. Harnessing Change for Continuity: The Play of Political and Economic Forces behind the Ottawa Process. In: Canadian Foreign Policy, Vol. 5 (Spring 1998): pp. 85-103.

⁸ For the text of the Ottawa Mine Ban Convention, see SIPRI Yearbook 1998. Oxford, 1998. For explanation of the text, see Banning Anti-Personnel Mines: The Ottawa Treaty Explained. International Committee of the Red Cross, 1997; and Goldblat, Jozef. Anti-Personnel Mines: From Mere Restrictions to a Total Ban. In: Security Dialogue, Vol. 30 (1999): pp. 19-23.

develop, produce, otherwise acquire, stockpile, retain or transfer to anyone, directly or indirectly, anti-personnel mines; c)to assist, encourage or induce, in any way, anyone to engage in any activity prohibited . . . under this Convention." (Art. 1, para. 1). As has been pointed out by the ICRC, "In ratifying the Ottawa treaty, a country accepts that mines are no longer legitimate weapons to be used either in peacetime or in time of war. There are no exceptions to this rule."⁹

The Convention obliges each state party to destroy its stocks of APMs within four years of entry into force of the Convention for the state party (Art. 4), with the exception of the possibility to retain a number of APMs "not to exceed the minimum number absolutely necessary" for the purposes of the "development of and training in mine detection, mine clearance, or mine destruction techniques" (Art. 3, para. 1). The only other exception in the Convention permits the transfer of APMs for the purpose of their destruction (Art. 3, para. 2). The Convention also obliges each state party "to destroy or ensure the destruction of all anti-personnel mines in mined areas under its jurisdiction or control" no later than 10 years after entry into force of the Convention (Art. 5, para. 1).

Articles 7-13 of the Convention provide a variety of mechanisms aimed at promoting compliance with the Convention, including transparency measures, facilitation and clarification of compliance procedures, dispute settlement processes, and mechanisms for meetings of the States Parties and for review and amendment of the Convention. Because of the nature of landmines, highly intrusive verification procedures were considered to be impracticable and too costly. Instead the Convention relies heavily on the stigmatisation of APMs and on mechanisms which encourage cooperation. Article 9 obliges States to take national legal, administrative and other measures "to prevent and suppress any activity prohibited to a State Party under this Convention undertaken by persons or on territory under its jurisdiction or control", rather than attempting to provide any such measures internationally.

The Convention explicitly recognises that the APM problem will not cease with the implementation of its prohibitions on the production, stockpiling, transfer and use of APMs. Article 6 takes note, in the form of a general obligation on States in a position to do so, of the commitment which will be necessary and the assistance which will be required for effective mine clearance, mine awareness, care and rehabilitation of mine victims and their social and economic reintegration. Although there are the

⁹ Banning Anti-Personnel Mines: The Ottawa Treaty Explained. International Committee of the Red Cross, 1997: p. 7.

expected provisions for national withdrawal from the Convention, Article 20 places severe limits on this; language has also been included which makes explicit that any withdrawal does not "in any way affect the duty of States to continue fulfilling the obligations assumed under any relevant rules of international law". Article 20 also makes the Convention of unlimited duration. States joining the Convention must also join unconditionally; Article 19 permits no reservations.

Considering where the situation stood on APMs at the end of the CCW Review Conference in May 1996, the signature in late 1997 by more than 120 countries (far more than have ever joined the CCW itself) and the early entry into force in 1999 of a Convention whose provisions go far beyond the limited measures of the CCW, are of historic moment. The Ottawa Convention establishes a powerful new international norm which will help to make possible meaningful inroads into ameliorating the human suffering APMs have caused.

But no international treaty ever satisfies everyone and the achievement of the Ottawa Convention, like all other international agreements, required, as expected, some compromises. There are several areas of concern which should be noted which could adversely affect the impact the Convention is clearly intended to have on the mine problem.

In the Ottawa Convention negotiations it proved possible to remove the word "primarily", which had crept into Amended Protocol II, from the definition of antipersonnel landmine, hence eliminating the possible ambiguity which that word introduced. However, ambiguity was then re-introduced into the definition by the addition of the sentence "Mines designed to be detonated by the presence, proximity or contact of a vehicle as opposed to a person, that are equipped with anti-handling devices, are not considered anti-personnel mines as a result of being so equipped." (Art. 2, para. 1). This raises two possible problems. First, the Convention does not define "vehicle", opening up the possibility that mines designed for use against light-weight vehicles could behave very much like anti-personnel mines and yet not be specifically prohibited under the Convention and that mines currently classified as antipersonnel mines which have anti-vehicle capabilities could be reclassified as antivehicle mines and therefore be considered to fall outside the prohibitions of the Convention. Second, although "anti-handling device" is defined in the Convention as a device "intended to protect a mine and which is part of, linked to, attached to or placed under the mine and which activates when an attempt is made to tamper with or otherwise intentionally (emphasis mine) disturb the mine" (Art. 2, para. 3), it is argued by some that there is insufficient specificity in this definition to reduce fears that innocent civilians will continue to be affected adversely by the presence of such devices. Although ICBL observers in the Oslo negotiations felt that they had extracted a concession in the negotiations, to be included in the diplomatic record of the Oslo conference, implying a general agreement that any explosive device that acts like an anti-personnel mine is an anti-personnel mine and is therefore prohibited by the Convention, the decision to include definitions based on "design" rather than on their "function" in the Convention is seen by some critics as opening a worrying legal loophole.¹⁰

The modest compliance mechanisms of the Convention, emphasising as they do transparency and confidence-building ways of working rather than intrusive verification mechanisms, also represent a potential limitation of the Convention. How will new use of landmines, given the large numbers of mines currently emplaced in mine-affected regions, be detectable? How likely is it that States, the only actors under the terms of Article 8 of the Convention entitled to submit a "request for clarification" of compliance, will actually do so in the case of suspected Convention violations by another state?

It is too early to weigh the impact of these and other potential weaknesses in the Convention. Better judgements will be able to be made in the coming period, now that the Convention has entered into force. The Convention has built into it a regular review process and amendment provisions for strengthening it, which will make it possible both to monitor in a systematic way how well the Convention is fulfilling its purposes as well as a means for fixing or improving those dimensions which may not be working as well as intended.

For the immediate future, however, the real tests of the success of the Ottawa Convention will be how rapidly the number of States agreeing to be bound by its provisions grows, how quickly States bring their own behaviour into conformity with the Convention, and the extent to which sufficient international commitment to mine action in terms of mine clearance and victim assistance can be mobilised. In the end, the proof of the worth of the Convention will be whether or not the number of civilian casualties due to APMs falls, land is returned to productive use, individuals and communities victimised by landmines are successfully rehabilitated.

¹⁰ For a particularly strong expression of concern about these issues of definition, see the Discussion Paper "Definitions and Anti-Handling Devices" prepared by one of the world's leading demining organisations, the Mines Advisory Group, 31 August 1997. See also Short, Nicola. A New Model for Arms Control? The Strengths and Weaknesses of the Ottawa Process and Convention. In: Disarmament Diplomacy, Vol. 24 (March 1998): pp. 7-11.

5 THE ROAD FROM OTTAWA

Running concurrently with the Convention signature conference in Ottawa in December 1997 was a three-day "Mine Action Forum". This Forum, also sponsored by the Canadian government and attended by hundreds of governmental, international organisation, and non-governmental organisation representatives, signalled the understanding that the achievement of a ban Convention was only the beginning of real work towards eliminating the APM problem. Effective mine action will need to take a number of shapes in the months and years ahead, if the promise of the Ottawa Convention is to be realised. Like the work towards the ban Convention itself, this will need to be a joint effort of governments, international agencies, and NGOs alike.

5.1 Expanding Participation

Efforts since Ottawa have in part been focused on achieving rapid entry into force of the Convention. Although the numbers of those which have submitted their instruments of ratification now stands at well over 60, with the first meeting of States Parties to the Convention scheduled to take place in May 1999 in Maputo, there remain a large number of States which have not yet signed the Convention and are unlikely to do so in the near future. These include, among others, the Russian Federation, China, the United States of America, India, Pakistan, Turkey, Finland, the two Koreas, Egypt and Israel and most of the States in the Middle East, a large number of the former republics of the Soviet Union, Burma and Vietnam. Many reasons - real, imagined, disguised – lie behind the reluctance to join the Convention at this time. In many of these cases, the reluctance is due to regional instability and insecurity or to actual internal or regional conflict. As with the Russian Federation, some governments cite variously the cost of mine clearance and the destruction of stockpiles, long exposed borders or the lack of a viable, affordable alternative to what is still considered to be a vital element in national defence, as reasons behind being unwilling to join the Convention at this time. Itself a key actor and important proponent of strong international action on the landmines problem, the United States has nevertheless itself stayed out for the time being, citing, among other reasons, its special responsibilities on the Korean peninsula, where it perceives landmines to have a continuing role to play in the current climate. Egypt, still affected by the millions of mines left on its territory during the Second World War, cites the failure of the Convention to have sufficiently strong provisions obliging those who lay mines to clear them, as well as its regional conflict with Israel, also not a signatory State. And so on.

Clearly, the larger the number of countries joining up to the Convention and adhering to its provisions the better and the more quickly the principles enshrined in the Convention will move into being considered customary international law, the more quickly effective action can be taken to clear mines and meet the needs of mine victims. Approaching universalization of membership in the Convention is therefore an important goal. But the already large number of countries which have joined, the early entry into force of the Convention, and the continuing campaign to stigmatise antipersonnel landmines all work to establish the Convention as the norm of acceptable behaviour by States, even though many may stay out for some time to come.

Nevertheless, a number of steps can and are being taken to seek to move currently reluctant countries towards adherence to the ban elements of the Convention and eventual membership. These include:

- Meetings aimed at addressing the special concerns and needs of particular regions or countries, for example, the "Baltic-to-the-Balkans" regional conference held in Budapest in March 1998 jointly sponsored by the ICBL and the ICRC, the ICBL/International Physicians for the Prevention of Nuclear War jointly organised diplomatic and NGO conference on the APM issue in Moscow in May 1998, or the Regional Workshop on the Menace of Landmines held in Beirut in February 1999;
- Regional seminars which the ICRC has sponsored or in which it has participated, designed to address continuing issues over the military utility of APMs;
- Workshops and seminars organised around issues of mine action which also seek to address the particular needs of particular regions, for example, the "Landmines, Injuries and Rehabilitation" conference held in Amman in July 1998 and organised by the Landmines Survivors Network;
- Conditionality arrangements for international assistance in mine clearance and victim assistance programmes obliging States to end their use of mines as a condition for assistance;
- Addressing and reducing the root causes of local and regional insecurity and conflict; and
- Encouragement of agreements ending the use of APMs between warring factions, such as that achieved between the Sudanese government and the SPLA.

5.2 To CD or not to CD?

The absence from the Ottawa Convention of several of the world's major powers and the largest producers and users of APMs has led some to continue to champion a role for the Conference on Disarmament on the APM issue. Work in the CD could directly address the military security concerns of some States, something the "opt-in" process of the Ottawa Process failed to do, advocates argue. By taking a step-by-step approach to a total ban, beginning with a ban on transfers, States currently reluctant to join the Ottawa Convention could be progressively brought on board and global APM control regime strengthened, it is argued. Others less publicly express their fear that a piecemeal approach in the CD could undermine the ban norm established by the Ottawa Convention, with some even suggesting that this is precisely the goal of some advocates for CD action. Cynics argue the only real reason some press so hard for action by the CD is that the CD needs to be seen to be doing something. At this writing, it is clear that some States will make full use of the practice of consensus in the CD, so successfully avoided in the Ottawa Process, to stop any action in the CD which it appears might undermine the norm established by the Ottawa Convention or any of its particular provisions. Others, wishing either to see no further action internationally on APMs or wishing to use the APM issue as a bargaining chip for work on other issues they feel more appropriate to the role of the CD, may also resist any further steps in the CD. During the 1998 session, the CD re-appointed a Special Coordinator on Anti-Personnel Landmines, but his efforts did not succeed in reaching consensus on the setting up of an Ad Hoc Committee to negotiate a transfer ban. Early in the 1999 session of the CD, a number of states, including both some Ottawa Convention States Parties and others who have not yet joined the Ottawa Convention, again have argued for the CD to work on an APM transfer ban. The CD in 1999 is likely to again appoint a Special Co-ordinator to explore this possibility, but, at this writing, little seems to have changed to indicate that transfer negotiations might actually get under way in 1999 in the CD.

The issue of establishing a legally-binding ban on transfers of APMs does raise a number of issues, however, quite apart from linkages with other issues which any proposed action in the CD always includes. On the one hand, if carefully enough worded so as to include the universalization of the Ottawa Convention as the goal towards which such a transfer ban was intended and so as not to be able to be interpreted as in any way undermining the Ottawa Convention, it would seem logical that an effort to progressively bind in States to the ban elements of the Conventional could provide a useful service. On the other hand, it can also be argued that:

- certain transfer restrictions already exist under Amended Protocol II and States might better be encouraged to join the CCW and ratify Amended Protocol II and seek its further improvement as a more efficient way of working;
- transfers of APMs have already been drastically reduced through unilateral national moratoria; more efficient than an expensively negotiated international treaty for such a relatively minor issue might therefore be the encouragement of further national and regional transfer provisions; and
- a transfer ban on its own could actually have the effect of increasing domestic production and therefore use of the more deadly dumb mines by non-Ottawa Convention States without the technology to produce "smart" mines themselves and prevented under a transfer ban from obtaining them.

5.3 What Continuing Role for the CCW?

While a role for the Conference on Disarmament which is clear and unambiguously complementary to and supportive of the Ottawa Convention may yet emerge, the Ottawa Convention has clearer links with Amended Protocol II of the CCW and may prove a more productive route to pursue in approaching the universalization of an APM ban regime than the Conference on Disarmament can ever be. While the Ottawa Convention goes far beyond Amended Protocol II, efforts were made in the drafting of the Ottawa Convention to make the Convention consistent in language and form with Amended Protocol II. This will make the eventual harmonisation of the two mechanisms easier.

In the meantime, the two mechanisms will exist in parallel. Approached creatively, they can serve to complement and strengthen each another rather than seeming to offer two choices to States, one less costly than the other. States joining Ottawa should be encouraged also to join the CCW if they have not already done so and to quickly sign up to and ratify Amended Protocol II. As the CCW itself then moves towards universal membership (by 30 January 1998, 71 States had adhered to the 1980 Convention)¹¹, joined to the Ottawa-based regime will then be the important elements in Amended Protocol II which are not repeated in the Ottawa Convention, namely the provisions on the application to internal conflict, the responsibility on the users of mines for their removal, the provisions covering the use and transfer of

¹¹ Landmines Must be Stopped. In: ICRC Overview 1998. International Committee of the Red Cross, 1998.

anti-vehicle mines, and the protection provisions for international humanitarian workers. States still reluctant to join Ottawa, by signing up to and observing the provisions of Amended Protocol II, will also be moved in the direction and intention of the Ottawa Convention. Increasing membership in the CCW will also have the additional effect of strengthening that mechanism overall, the CCW still being the only international humanitarian law-based instrument for the specific regulation of existing conventional weapons and for responding to the emergence of future weapons. In 1999 the first meeting of States Parties to Amended Protocol II will also take place, with the Review Conference of the CCW required in 2001.

Amended Protocol II entered into force at the end of 1998, the required 20th instrument of ratification having been deposited with the UN Secretary General in June. The first annual meeting of States Parties to Amended Protocol II will take place in November 1999. This meeting, the next CCW Review Conference, which must take place no later than 2001, and the meetings of States Parties which will take place in advance of that event, will provide opportunities for re-enforcing the elements of complementarity between Amended Protocol II and the Ottawa Convention, for emphasising the primacy of the stronger provisions of the Ottawa Convention, and for stimulating the adherence of additional States to both. Just how the two texts might be more systematically brought together in the future remains unclear and is rather less important while numbers of States remain outside one or both of these instruments. It is nevertheless an issue that will have to be tackled at some point in the future.

5.4 Compliance and Monitoring

Of vital significance to the impact of the Ottawa Convention will be how quickly States move to actually implement the steps required of them by the Convention, such as the destruction of stockpiles and the clearance of mined areas, and the submission of the required reporting.¹² Also, assessment of the amounts and effectiveness of assistance provided to needy States to meet their own compliance obligations as well as more generally to the mine clearance and victim assistance commitments undertaken in the Ottawa Convention will be required. The Ottawa Convention itself

¹² The Convention seeks to take into account the particular needs which some States Parties may have in meeting its stockpile destruction and mine-filed clearance provisions, saying that States Parties may request assistance in the putting into place of de-mining programmes and also making it possible for particularly mine-affected States to request an extension of time.

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provides no formal structures for this except for the receipt by the UN Secretary General of reports by State Parties required under Article 7 ("Transparency Measures") of the convention. Hence, "civil society" will have an important role to play in monitoring and publicly reporting on the actual compliance of States Parties, despite the fact that they have not been given any formal role in triggering the "request for clarification"-related provisions of the Convention. To this end, the International Campaign to Ban Landmines has already taken steps to establish an international reporting network and data base named "Landmine Monitor", and to produce an annual "State of Landmines" report. Landmine Monitor will report information on individual countries on such things as whether the country has passed implementing legislation required by the Convention and on national behaviour on mine production, transfer, stockpiling and destruction, use, funding for humanitarian mine action, survey/assessments on mine clearance needs, mine awareness programmes, actual mine clearance, reconstruction and development of cleared areas. Landmine Monitor promises to be of considerable importance in helping to guarantee that States Parties live up to their obligations under the Convention and that there is confidence in this new landmines regime. The first report of Landmine Monitor is due out at the time of the first meeting of States Parties in Maputo in May 1999.

5.5 Mine Clearance, Mine Awareness, and Victim Assistance

The ending of the production, stockpiling, transfer and use of anti-personnel landmines has been understood to be fundamental to successful action to reduce the suffering and clear up the global pollution caused by the widespread and irresponsible use of APMs. Making the Ottawa Convention succeed at the ban it establishes as a norm will therefore be an extremely important task in itself over the coming years.

Of equal importance, however, will be the effectiveness of programmes set in place to clear the millions of mines already laid, to protect civilian populations from existing mines and to deal with the needs of individuals and regions affected by the use of mines in war. The Ottawa Convention is perhaps unique in the holistic and explicit way in which it takes into account the importance of such action linked to an arms ban itself. To use the short-hand terminology of the International Campaign to Ban Landmines, the Convention rests on three equally important "pillars" of de-mining, victim assistance, and a total ban on the use of APMs.

It is impossible to do justice here to the complex of issues, approaches, and actors of relevance to the "de-mining" and "victim assistance" pillars which will be key to the

actual implementation of the full intentions of the Ottawa Convention, but several elements must be mentioned.

It is increasingly being understood that dealing with the legacy of landmines proliferation is not just a technical or technological problem. New de-mining methodologies will of course be necessary and useful to mine removal, as will new medical technologies for helping mine victims. But these need to be fitted appropriately into broader understandings of mine action based on humanitarian and developmental principles. This evolving understanding can been seen in recent reflections from two sets of actors central to the future of mine action efforts, non-governmental organisations and United Nations agencies. As part of what have become known as the Bad Honnef Guidelines, a wide range of non-governmental organisations (but including also UNICEF), engaged in working in mine affected regions, made the following statement in June 1997: "[T]he continuing threat posed by millions of mines well after officially announced cease-fires metaphorically captures the overall societal destruction wrought by war. Attempts at rehabilitation therefore require a comprehensive concept of reconstruction and development. Pragmatically providing some technical 'input', like clearing a mine or fitting a prosthesis, is not enough. Reconstruction and development must instead be achieved socially, in a sustained struggle for that which the catastrophic reality of war destroyed, i.e., the social fabric, traditional social agreements, the specific communication between human beings and their social environment, which is to say, their regionally unique culture."13

Similarly, in the "Guiding Principles" section of a discussion document produced by the UN Mine Action Service, the UN body, operating under the UN Department for Peacekeeping Operations, now designated as responsible for co-ordinating all UN agency activity having to do with mine action, the following intention has been stated: "The nature and scope of the landmine problem must be defined in terms of its humanitarian, public health and socio-economic implications, including in particular, its impact on lives, livelihoods, the provision of humanitarian assistance, and, more generally, an environment which should be safe and conducive to peace-building, reconstruction and development."¹⁴

¹³ Guidelines for Mine Action Programmes from a Development-oriented Point of View. Revised version of integrating proposals made at the International NGO Symposium, Bad Honnef, Germany, 23-24 June 1997.

¹⁴ Mine Action and Effective Coordination: The United Nations Policy. United Nations Mine Action Service, 1998.

It is still early days in the development of effective mine action. With the exception of the ICRC and some experienced non-governmental organisations which have been dealing with these issues for years and whose energies prompted the ban movement in the first place – and to some extent even for them – most actors, "official" and "unofficial," are still asking the questions "what is to be done?" and "how should it be done?" One of the first tasks under way is to gather far better data than is presently available on exactly what is the nature and scope of the landmine clearance need.

There is much opportunity as well as some danger in the present moment. At the Ottawa Conference in December 1997 some \$500 million was pledged by governments for mine-related work. At this writing, questions are being asked as to just where this money is and how effectively it is being spent. There are many new programmes under way or in development, such as the Geneva International Centre for Humanitarian Demining", which will offer a broad range of services relevant to the mine action challenges ahead. Co-ordination within the UN system through the UN Mine Action Service and with UN Mine Action Centres in different parts of the world is still at an early stage. Effective co-existence and collaboration between these programmes of such organisations as the Halo Trust, Norwegian Peoples Aid, Vietnam Veterans of America Foundation, and Handicap International are only just developing. Conferences and meetings on different dimensions and challenges of mine action work are taking place around the globe.¹⁵ Key to success in the efforts to eliminate landmines and their effects will be such things as:

- the effective allocation of available financial resources to where they are most needed and can most effectively be used;
- the sustaining of international commitment, including financial, to this issue for as long as it takes to get the job done;
- effective and appropriate capacity building programmes for mine-affected regions and the inclusion of local populations from mine-affected regions in the development and carrying-out of mine action programmes;
- the development and implementation of "best practice" guidelines and standards for mine action programmes;

¹⁵ See, for example, the issues, programmes, and events outlined in: An Agenda for Mine Action: Summary report of the Mine Action Forum, 2-4 December 1997. DFAIT/IDA, Ottawa; and Years, not Decades: Agenda for Mine Action II: Summary report of the follow-up Mine Action Coordination Workshop, 23-24 March 1998. DFAIT/IDA, Ottawa.

- the generation and management and exchange of data about the nature and scope of the mines problem in different regions;
- the monitoring and evaluation of mine action programmes and the integration of lessons learned into existing programmes and programme development; and
- new patterns of communication, co-ordination and co-operation between and within international agencies, government programmes, and the work of non-gov-ernmental organisations.

An important issue at the present moment, requiring extreme watchfulness, is the extent to which the nature of available resources and the competition for those resources, in a policy area which has currently a certain fashionable nature, may distort the nature of the work undertaken and in effect ignore or undermine the evolution and application of the broader principled objectives and approaches for mine action which are still in their infancy.

The first meeting of States Parties in Maputo in May 1999 will be an important moment for the Ottawa Convention. There States Parties will not only take note of the Entry-into-Force of the Convention but will also set the agenda for mine action for the coming period. Included will be the determination of methodologies for putting the provisions of the Convention, such as formats for fulfilling the requirements of reporting to the UN Secretary General, into practice. In Maputo there also will be the opportunity to put into place practices and mechanisms for the effective functioning of the Convention in the absence of a formal Convention Organisation.

5.6 Some Concluding Thoughts

The historic process of how the international community has had its conscience pricked and has moved with speed and comprehensiveness to act has only been able to be briefly sketched here. It is an evolving story. By way of ending this particular analysis at this stage in the story, several concluding thoughts seem appropriate:

• The global focus on the landmine problem and the way in which the Ottawa process evolved have enabled something of a shift in the way weapons questions are considered, making space for greater consideration of the human impact of the use of weapons and a broader attention to the understanding of "security". The work to eliminate a whole weapons system and to tackle the problems caused by it have helped to make it possible to develop approaches for managing more effectively the weapons which make up by far the largest percentage of those actually being used in the types of conflicts facing the world today, so-called small arms and light weapons. The post-Cold War period has made it possible to focus in new ways on the nature of contemporary conflict and to make more comprehensive our understanding of "security". The holistic nature of the Ottawa Convention is recognition of how the landmines issue has helped to speed this necessary development along;

- Despite this, landmines, as has been noted earlier, are a particular category of weapon, defensive in nature and of limited military importance. No other weapons systems will be so easily dealt with. Management attempts in all other weapons systems will affect more fundamentally the core security concerns of States and therefore are unlikely to be as amenable to an Ottawa-style process. Nevertheless, what Ottawa does underline once again, as has been the case in other arms control agreements, is that, in certain cases, there is no reason why governments ready to move forward on arms control issues of mutual concern should wait for universal agreements before proceeding to establish new practices and new norms;
- An elaborate verification regime for the Ottawa Convention was not technically or politically possible at the time of negotiation. Whether or not the limited nature of the compliance and verification provisions of the Ottawa Convention prove to be a real weakness or not can only be told with time. Ottawa has established an important international norm. Anti-personnel landmines have been banned. Their further use by actors, state and non-state alike, has been stigmatised. Further expansion of the number of States binding themselves to the Ottawa Convention will hasten the day when this ban will be understood as customary international law, binding all. Vigilance and the evolution of effective and transparent monitoring and reporting mechanisms will help to fill the gaps apparent in the present Convention. And the Ottawa Convention, it must be remembered, can be amended to strengthen its provisions;
- Of considerable importance in the coming years will be the extent to which States conform with not only the letter but also the spirit of the Ottawa Convention. The "definitions" problem in the Convention, mentioned earlier will be a concern. The understanding that "any explosive device that acts like an anti-personnel mine is an anti-personnel mine and is therefore prohibited by the Convention" has yet to be tested in the actual practice of compliance with the Ottawa Convention;
- The use and abuse of landmines have emerged from a context only part of which has to do with the availability of this terror weapon. Of much greater importance, however, are the root causes of conflict and war between peoples and states. Only when these are effectively addressed will it possible finally to end the use of this

weapon. There is a lesson here also for the evolution of collective responses to light weapons, the larger class of weapons to which APMs belong. As Thomas Gebauer of Medico International has said: "The question of how to eliminate landmines is indeed a strategic question. In order to give an answer, we need to focus on the context of mines, on war and social injustice. We are convinced that each and every mine has to be demined but at the same time we know that the mines will disappear only when the circumstances dominating the world are – after all – determined by social justice, when health, education, self-determination and liberty are more than only rhetorical phrases."¹⁶ This broader way of thinking will become particularly necessary in the post-Ottawa implementation phase which we have entered. It will have a particular application when addressing how to more effectively get the provisions of the Ottawa Convention applied to so-called "non-state" entities, an issue that will assume greater importance in the months and years ahead;

The global efforts on landmines have helped to raise public awareness that limits must be placed on the conduct of war. The Ottawa Convention not only adds to the corpus of international humanitarian law with application to APMs themselves but also strengthens the legitimacy of applying such principles to other existing weapons systems as well as to those on the drawing board. But the enormous effort which has been required to get to where we are today on landmines points to the need to move beyond a practice which requires deadly proof of the impact on civilians before serious action is taken. Means need to be found to better judge weapons for their potential impact before they are deployed and allowed to wreak the havoc that landmines have. (Hence, the Ottawa Convention definitions, based as they are on "design" rather than impact, do not represent a very dramatic step forward and demonstrate the continued conservatism of governments on this subject). One of the other accomplishments of the 1980 CCW Review Conference which offers some encouragement in this direction was the agreement to a new Protocol prohibiting in advance the use and transfer of blinding laser weapons. This prevention measure offers a positive example of what might be done in relation to a whole range of new weapons technologies

¹⁶ As quoted by Solomon M. Santos Jr. of the Philippine Campaign to Ban Landmines in his paper Mine Action, Peace-building and Conflict Resolution. A discussion paper prepared for the February 1998 meeting of the International Campaign to Ban Landmines in Frankfurt, Germany; See also Bendaña, Alejandro. Politics or Paternalism? The Need for a Social Transformation Framework. In: Global Campaigns: A View from the South. Center for International Studies, Managua, Nicaragua, 1997 (unpublished paper).

moving towards us from the laboratories and the testing ranges. The International Committee of the Red Cross is currently investigating the feasibility of establishing objective medical criteria to determine whether the health effects of a given weapon are of a nature to cause superfluous injury or unnecessary suffering and hence should be banned under international humanitarian law before they can have the kinds of human consequences that landmines have caused;¹⁷ and

• The landmines effort has demonstrated that major social changes can be accomplished when non-governmental organisations, concerned governments, and international agencies can find creative ways to work together in common cause, even on defence and security issues. It has also demonstrated that, in this post-Cold War world, middle powers can play an important role in shifting both the agenda and the way business gets done. As noted above, the special character of the APM issue – including the very easily understood nature of the problem – requires great caution in assuming any immediate application to other weapons issues. Nevertheless, the landmines effort has succeeded in making more visible the changed nature of the new world in which we are living. That effort itself will also, no doubt, further influence that world and how we understand its limits and possibilities. Even though what has been accomplished will yet have to stand the true test of time, it has at minimum rekindled hope and given many a renewed faith in the art of the possible.

¹⁷ See Coupland, Robin M. (ed.). The SIrUS Project: Towards a determination of which weapons cause superfluous injury or unnecessary suffering. International Committee of the Red Cross. Geneva, 1997.

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PROSPECTS FOR A BAN ON THE USE OF NUCLEAR WEA-PONS

by Jozef Goldblat, Vice-President of the Geneva International Peace Research Intitute (GIPRI)

Although there is no evidence that the existence of nuclear weapons and the declared readiness to use them have prevented the outbreak of another world conflict, there is a fairly widespread belief that nuclear deterrence helped to maintain peace over several decades. At present, however, in the radically different post-Cold War international political climate, deliberate employment of nuclear weapons against any adversary is difficult to imagine. It is, therefore, surprising that the strategic doctrines, those concerning the use of nuclear weapons, remain basically unchanged. The employment of nuclear weapons is envisaged – at least by some nuclear powers – not as a last resort, but as a way to react to attacks committed with any weapons (nuclear or non-nuclear), at any point of the globe. And yet, as stated by General Lee Butler, the former Commander-in-Chief of the U.S. Strategic Command, the likely consequences of nuclear war have no politically, militarily or morally acceptable justification.¹

This paper argues that the efforts to create a nuclear-weapon-free world will remain fruitless as long as the use of nuclear weapons has not been unreservedly and universally banned.

1 RESTRICTIONS ON THE USE OF WEAPONS

It is generally recognized that, in their application, weapons and war tactics must be confined to military targets; that they must be proportional to their military objectives as well as reasonably necessary to the attainment of these objectives; and that they must not cause unnecessary suffering to the victims or harm human beings and property in neutral countries. These rules form part of the international humanitarian law applicable in armed conflicts, often referred to simply as international humanitarian law, and are embodied in several multilateral treaties.

¹ Disarmament Times, Vol. XXI, No. 1 (April 1998).

The 1868 Declaration of St. Petersburg prohibits the use of projectiles below a certain specified weight, if they are explosive or charged with "fulminating or inflammable substances". The 1899 and 1907 Hague Declarations and Conventions prohibit the use of bullets which expand or flatten in the human body, of poison or poisoned weapons, of unanchored automatic contact mines as well as of anchored mines which do not become harmless as soon as they have broken loose from their moorings, and of torpedoes which do not become harmless when they have missed their target. The 1925 Geneva Protocol prohibits the use of asphyxiating, poisonous or other gases and of all analogous liquids, materials and devices, as well as of bacteriological methods of warfare. The 1977 Environmental Modification Convention prohibits the employment of techniques which modify the environment to cause destruction, damage or injury to another state. The several Protocols to the 1981 Inhumane Weapons Convention prohibit the use of weapons, the primary effect of which is to injure by fragments which in the human body escape detection by X-rays, as well as laser weapons causing permanent blindness; they also restrict the use of landmines, boobytraps and incendiary weapons. The above prohibitions apply to relations among parties to the relevant treaties. Some of them, however, in particular the prohibitions under the 1925 Geneva Protocol, are widely considered to be binding on parties and non-parties alike.

In three cases, the prohibitions or restrictions on the use of weapons, as specified above, have led to bans on the possession of weapons. Thus, the 1972 Biological Weapons Convention, effective since March 1975, bans the development, production, stockpiling or retention of microbial or other biological agents or toxins for hostile purposes, and provides for their destruction. The 1993 Chemical Weapons Convention, effective since April 1997, bans the development, production, stockpiling or retention of chemical weapons, and also provides for their destruction. The 1997 Anti-Personnel Mines Convention, effective since March 1999, bans the development, production, acquisition by other means, stockpiling and retention or transfer of antipersonnel mines, and provides for their destruction as well. However, there exists in international law no specific norm prohibiting or significantly restricting the use of nuclear weapons. This may be one of the main reasons why there have been no negotiations on the elimination of these weapons, as recommended by the very first resolution of the UN General Assembly.²

2 EFFORTS TO OUTLAW THE USE OF NUCLEAR WEAPONS

Attempts to establish a rule of law expressly banning the use of nuclear weapons have been going on for several decades. In 1961, by a vote of 55 to 20, with 26 abstentions, the UN General Assembly adopted a declaration stating that the use of nuclear weapons was contrary to the "spirit, letter and aims" of the United Nations and, as such, a direct violation of the UN Charter. The resolution went on to proclaim the use of nuclear weapons to be a "crime against mankind and civilization". The United States and other NATO countries opposed this resolution, contending that in the event of aggression the attacked nation must be free to take whatever action with whatever weapons not specifically banned by international law. In addition to the pronouncement of the illegality of nuclear weapons, the Assembly asked the Secretary General to ascertain the views of the governments of UN member states on the possibility of convening a special conference for signing a convention on the prohibition of the use of these weapons.³ The Secretary General's consultations proved inconclusive and the requested conference was never convened.

Resolutions advocating an unconditional ban on the use of nuclear weapons were also considered at subsequent sessions of the UN General Assembly. In particular, the Final Document of the Tenth Special Session of the UN General Assembly, held in 1978, recommended that efforts be made to bring about conditions in international relations that would preclude the use or threat of use of nuclear weapons.⁴ This and other similar recommendations have remained without a follow-up.

² UN General Assembly Resolution 1 (I), 24 January 1946, recommended that atomic weapons and all other major weapons adaptable to mass destruction be eliminated from national armaments. Weapons of mass destruction were defined in 1948 by the UN Commission for Conventional Armaments as those which include atomic explosive weapons, radioactive material weapons, lethal chemical weapons and biological weapons, and any weapons developed in the future which have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above. (UN document S/C.3/32/Rev. 1, August 1948.)

³ UN General Assembly Resolution 1664 (XVI), 24 November 1961.

⁴ UN document A/RES/S-10/2, 13 July 1978.

3 APPLICABILITY OF EXISTING LAW TO NUCLEAR WEAPONS

There is a body of opinion that there is no need to create a legal norm to ban the use of nuclear weapons, because such a ban is already covered by the humanitarian law of armed conflict. The arguments are as follows.

The use of nuclear weapons can be deliberately initiated either in a surprise preemptive attack aimed at disarming an adversary who may or may not be nucleararmed, or in the course of escalating hostilities started with non-nuclear means of warfare. The first situation, usually referred to as "first strike", is covered by the fundamental rule of international law enshrined in the UN Charter, namely, that the threat or use of force against the territorial integrity or political independence of any state is prohibited unconditionally, irrespective of the type of weapon employed – nuclear or non-nuclear. The second situation, usually referred to as "first use", involves the right of self-defence, which is also enshrined in the UN Charter: all states may defend themselves, individually or collectively, until the UN Security Council has taken measures necessary to restore and maintain international peace and security. The Charter does not specify which weapons may or may not be used by states in such a situation, but the right of self-defence is not unlimited.

In discussing the limitations on the right of self-defence, one should start from the rule, which is embodied in the 1907 Hague Convention IV on laws and customs of land warfare, and which prohibits the employment of arms causing "unnecessary" suffering or the destruction of the enemy's property, unless such destruction is "imperatively demanded" by the necessities of war. This rule seems to have little practical value, because no suffering caused by weapons of war can be deemed necessary, and because military necessity is a subjective notion. Nevertheless, the above-mentioned 1868 St. Petersburg Declaration was quite specific as to what was allowed and what was forbidden. It proclaimed that the only legitimate objective which states may endeavour to accomplish during war is to weaken the military forces of the enemy, and that, consequently, the employment of arms which uselessly aggravate the suffering of disabled men, or render their death inevitable, is contrary to the laws of humanity. Since nuclear explosions could cause massive injury to people and massive damage to property, and since mass destruction can hardly be a necessity, it would be nearly impossible to observe the relevant rule in a nuclear war.

Since modern weapons are capable of precise targeting, it is conceivable that a lowyield tactical nuclear weapon might be used against a selected military objective without causing indiscriminate harm to other objectives. However, once the nuclear threshold has been crossed, there can be no guarantee that a high-yield nuclear weapon will not be used. There will always be a risk of nuclear escalation on the part of the attacker, as well as on the part of the attacked nation, if the latter, too, possesses nuclear weapons. Thus, irrespective of motivation, a single use could provoke a nuclear war impossible to contain in either space or time. Indeed, it is not the targeting that should be decisive in determining the legality of nuclear weapons, but rather the enormous destructive potential of these weapons and the uncontrollable effects of their use. With today's technology, it is possible to release from one nuclear weapon in one microsecond more energy than that released from all conventional weapons in all wars throughout history.⁵ Even the 1925 Geneva Protocol, which deals with weapons less devastating than nuclear weapons, does not differentiate between targets or between more or less severe effects caused by the use of the banned weapons.

Under customary international law, reiterated in the 1949 Geneva Conventions for the protection of war victims, the belligerents are under strict obligation to protect the civilians, not taking part in hostilities, against the consequences of war. The indiscriminate nature of nuclear weapons renders this rule very difficult to comply with. Even if exclusively military targets were aimed at, civilian casualties could be an important by-product; in many cases they might outnumber the military ones. Yet another iniquitous aspect of nuclear warfare is the inability of the belligerents to comply with the requirement to respect the inviolability of the territory of neutral states. It is impossible to confine the effects of nuclear explosions, particularly radioactive contamination, to the territories of states at war.

Although the primary effects of nuclear explosions are blast and heat, nuclear radiation and radioactive fall-out, which they produce, inflict damage on the biological tissue of humans, animals and plants. Nuclear weapons can, therefore, for the purpose of the international humanitarian law, be compared to poison, the use of which as a method of warfare is prohibited by the Hague Declarations and the Geneva Protocol mentioned above.⁶ And, since nuclear explosions may also be expected to cause widespread, long-term and severe damage to the natural environment, their use

⁵ UN document A/35/392, 12 September 1980: p. 10.

⁶ The 1954 Protocol III (Annex II) to the 1948 Brussels Treaty (Paris Agreements on the Western European Union) defined nuclear weapons as "any weapon which contains, or is designed to contain or utilize, nuclear fuel or radioactive isotopes and which, by explosion or uncontrolled nuclear transformation of the nuclear fuel, or by the radioactivity of the nuclear fuel or radioactive isotopes, is capable of mass destruction, mass injury or mass poisoning (emphasis added). See Goldblat, Jozef. Arms Control: A Guide to Negotiations and Agreements. Oslo, London, 1994: p. 302.

would contravene Protocol I Additional to the 1949 Geneva Conventions relating to the protection of victims of international armed conflicts.

Finally, it is worth noting that, in placing limitations on the conduct of hostilities, the 1907 Hague Convention IV included the so-called Martens Clause, which was subsequently re-affirmed in several treaties. This Clause makes the informal norms established, and largely followed by, civilized peoples, e.g., the laws of humanity and the dictates of the public conscience obligatory by themselves, even in the absence of a *specific* treaty prohibiting a particular type of weapon. It was this legal yardstick that the International Military Tribunal, convened in Nuremberg to prosecute Nazi leaders after World War 11, applied in concluding that the law of war is to be found not only in treaties but also in customs and practices of states, and that, by its continual adaptation, this law follows the needs of a changing world. Thus, also weapons and tactics, which may be resorted to in the exercise of legitimate self-defence, must not violate the existing norms, whether or not these norms are spelled out in formal international agreements.

The cumulative effect of the generally accepted restraints on the use of all weapons is such that nuclear war can hardly be initiated with obedience to the rules of customary international law. It should be noted that in its judgment of 1986 in the case concerning military and paramilitary activities in and against Nicaragua, the International Court of Justice confirmed that customary law has the same standing as treaty law. Nonetheless, in view of the special character of nuclear weapons, a ban on their use cannot be simply deduced from restrictions regarding other types of weapon. This reasoning must have guided those who in 1925 decided to sign the Geneva Protocol banning the use of chemical and bacteriological means of warfare, even though the use of these means had already been condemned by the "general opinion of the civilized world", as stated in the Protocol itself. In other words, prohibitions concerning specific weapons ought to be incorporated in positive law, as they are in the case of chemical and biological weapons, as well as in the case of anti-personnel mines.

In its advisory opinion of 8 July 1996, the International Court of Justice (ICJ), the principal judicial organ of the United Nations, declared its inability to rule that the use or threat of use of nuclear weapons is prohibited unconditionally. At the same time, the ICJ declared the existence of an international obligation to achieve nuclear

disarmament "in all its aspects".⁷ However, nuclear disarmament is not achievable without prior undertaking by states not to use nuclear weapons under any circumstance. Mere cuts in nuclear arsenals will not necessarily lead to their abolition.

4 PROPOSAL FOR A NON-USE TREATY

Under the 1995 UN Security Council Resolution 984, the non-nuclear weapon states parties to the 1968 Nuclear Non-Proliferation Treaty (NPT) obtained assurances (the so-called negative security assurances) that nuclear weapons would not be used against them.⁸ These assurances, considered by many as politically (not legally) binding, are conditional: the United States, the United Kingdom, France and Russia stated that their assurances would cease to be valid in the case of an invasion or any other attack on these powers, their territories, their armed forces or other troops, their allies, or on a state towards which they have a security commitment, "carried out or sustained by such a non-nuclear-weapon state in association or alliance with a nuclear-weapon state". (China's security assurances are unconditional.) On another occasion, the United States made it clear that any use of chemical or biological weapons against it would be met with a devastating and overwhelming response. The nature of that response was not specified, but it was widely understood to be nuclear.

Following its May 1998 nuclear test explosions, India made a unilateral declaration that it would not be the first to use nuclear weapons. Pakistan, which has also tested nuclear explosive devices, refuses to adopt a no-first-use posture as long as India enjoys superiority in conventional armaments.

Legally binding assurances of non-use of nuclear weapons are contained in protocols to the nuclear weapon-free-zone treaties. They have been given to parties to these treaties, but are understood by the nuclear powers (again with the exception of China) to be subject to the same or similar conditions as the assurances given to parties to the NPT. The use of nuclear weapons against non-parties to the above-mentioned treaties, or between nuclear powers, is not formally prohibited. Only a formal unconditional obligation not to use nuclear weapons anywhere, against any target and against any country, whatever its status – nuclear or non-nuclear, aligned or non-aligned, party or not party to the NPT or a nuclear weapon-free-zone treaty – appears to have real significance. Such a new rule of law would require changes in the

⁷ The International Court of Justice Communiqué 96/23, The Hague, 8 July 1996.

⁸ UN documents S/1995/261-265.
composition of nuclear forces. In particular, short-range tactical nuclear weapons would have to be totally eliminated because of their first-use characteristics: once deployed close to the front lines, as they must be to have military value, they are likely to be employed very early in armed conflict to avoid capture or destruction by the adversary's conventional forces. To become even more credible, the proposed non-use commitments could be backed up by taking the nuclear strategic forces off alert. This would require an observable separation of nuclear warheads from launchers in such a way as to render their use physically impossible without a substantial delay facilitating detection of clandestine preparations for use. De-alerting would reduce the risk of a surprise attack, and of an unauthorized or accidental launch of nuclear weapons. Once the use of nuclear weapons has been prohibited, the very threat of such use will become unlawful.

The right of legitimate self-defence, individual or collective, would be restricted to the use of non-nuclear means of warfare, even in response to an aggression committed with chemical or biological weapons. Breakouts from the 1925 Geneva Protocol and the 1993 Convention banning the employment of chemical and biological weapons could be countered with modern conventional weapons. Moreover, parties may withdraw from arms control treaties, if some extraordinary events have jeopardized their interests. A proven violation would justify withdrawal.

Though classified as weapons of mass destruction along with nuclear weapons, chemical and biological weapons have some important distinctive features. Under certain exceptional circumstances, the use of biological weapons may produce fatalities comparable to those caused by nuclear weapons. However, since it would be impossible to recognize each unusual outbreak of a disease as an aggression, and since there would be no "signature" of the user, an attacker could hardly be deterred by a threat of nuclear retaliation. Chemical weapons, even used on a large scale, could not reach the level of destructiveness caused by a nuclear attack. Moreover, there exist means of defence against biological and chemical weapons: vaccination, antidotes, masks, protective clothes, decontaminants. There are no such means against nuclear weapons.

According to the doctrine of belligerent reprisals, a retaliatory use of nuclear weapons to make a violator of the ban on use desist from further illegitimate actions would not be considered a breach of the ban, if it were proportionate to the violation committed and to the injury suffered. Thus, countries possessing nuclear weapons would be committed only to no first use, it being understood that attacks on the civilian population and objects protected by international law could not be tolerated under any circumstance. Some people argue that the doctrine of belligerent reprisals is inapplicable in the context of nuclear warfare because the particularly inhumane nature of nuclear weapons makes their second use as illegal as their first use. Several countries have adopted this attitude with regard to chemical and/or biological weapons, recognizing that the prohibition on their use is absolute, not subject to exceptions. It is doubtful, however, whether those possessing nuclear weapons would be willing, in case of a nuclear aggression, to give up the right to respond in kind.

The proposed non-use obligations should be included in a multilateral treaty rather than in easily reversible unilateral declarations. A forum to negotiate the treaty could be the Geneva-based Conference on Disarmament, or an international body specially constituted for this purpose, for example, a diplomatic conference convened by a large group of like-minded nations, including some, but not necessarily all, nuclear powers and nuclear-weapon-capable countries. The treaty, to be open to all states, would, however, become effective only upon the deposit of the instruments of ratification by *all* states possessing nuclear weapons, as well as those admitting to possess the capability to manufacture them.

Violation of the treaty banning the use of nuclear weapons must be qualified as a crime under international law and treated as such. The Statute of the International Criminal Court, adopted in July 1998, would have to be complemented accordingly. In case of doubt as to whether a nuclear device has been used, and by whom, the UN Security Council should, at the request of any party, engage in investigations which might include on-site inspection. A permanent member of the Security Council, accused of violating the treaty, would have to waive its right of veto with regard to resolutions concerning investigation of breaches. Such waiver should also be applicable to decisions which the Security Council might adopt if the situation created by a violation required action, such as the provision of assistance to the affected party or compensation for the caused damage.

The treaty should be of unlimited duration. Withdrawal from it could be justified only in case of an internationally established material breach of its provisions.

5 CONCLUSION

A global ban on the use of nuclear weapons would reinforce the fire-break separating conventional and nuclear warfare. It would, thereby, diminish the risk of nuclear war and weaken the political force of explicit or implicit threats to initiate such a war. Indeed, the doctrine of nuclear deterrence, in so far as it consists in threatening a nuclear attack in response to any armed attack, would have to be declared invalid.

Furthermore, in discarding the war-fighting functions of nuclear weapons, the nonuse posture would minimize the importance of nuclear superiority, whether quantitative or qualitative. It would, therefore, clear the way towards the elimination of tactical nuclear weapons, and towards new substantial reductions of strategic nuclear forces. All this would render more trustworthy the pledges made by the nuclear powers that they would eventually bring about nuclear disarmament, as they are, in fact, obligated to do under the NPT.

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PROSPECTS FOR THE EFFECTIVE IMPLEMENTATION OF THE BIOLOGICAL AND THE CHEMICAL WEAPONS CON-VENTIONS

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1 WHAT ARE THE BASIC CHARACTERISTICS OF BIOLOGICAL AND CHEMICAL WEAPONS AND WHAT ARE THE DIFFERENCES BETWEEN THEM?

1.1 Characteristics of Biological Weapons

Biological Weapons (BW), in the strict sense of the term, are munitions or devices to disperse biological warfare agents. According to the 1969 official UN definition, biological warfare agents are living organisms, whatever their nature or infective material, which are intended to cause disease or death in man, animals or plants, and depend for their effects on their ability to multiply in the person, animal or plant attacked. However, BW and biological warfare agents are commonly used as synonyms. The Swedish FOA briefing book on BW provides a good overview of the special properties of BW. They consist of micro-organisms including viruses, rickettsia, bacteria, fungi and protozoa, as well as toxins that are similar to CW but derived from living organisms. They are able to incapacitate or kill human beings or reduce the function of their immune systems. Apart from the intention to harm human beings, BW can also be used against domestic animals or crops to damage the livelihood and economy of a country. In comparison with other weapons, BW have several properties:

- Their effect is not instantaneous. It may require periods ranging from hours to weeks before symptoms begin to appear, because the micro-organisms must multiply within their host before the disease can break out;
- Only very small amounts are required to achieve effects. Since biological warfare agents multiply in their hosts, very small infectious doses are effective;

- BW may (but need not) have a secondary effect, implying that the disease can be transferred to other individuals. A minor attack with infectious BW against a local target may lead to a widespread epidemic both geographically and over time; and
- BW do not destroy equipment. This characteristic, which they share with CW, means that buildings and other equipment are not damaged by BW attacks. Only living organisms are affected.

A large number of micro-organisms can cause disease; however, not all of them can appropriately be used as BW. Certain requirements must be met before an attack with such agents is effective. Among other things, the micro-organism in question must be able to survive for a certain period of time in the atmosphere or in foodstuffs and must also be able to give rise to a serious, but not necessarily fatal, illness. In order to attain the intended effect with BW, the aggressor may need to possess knowledge of the level of protection, the possibilities of vaccination and medical treatment, the standard of hygiene and the level of resistance among the population of the country he is intending to attack.

In overt biological warfare, the nature and origin of the attack are clear and the aggressor can carry out his attack without restrictions in order to achieve his objective in the most efficient manner. BW can also be used covertly. The victim may neither suspect nor be able to prove that he has been exposed to BW. Similarly, he will be unable to identify who was responsible for the attack. In covert biological warfare, it is likely that the aggressor will resort to diseases that occur naturally in the target area. The operation will probably be carried out in such a way that the cause of the disease can be assumed to be of natural origin. It is also likely that the attack will be designed so that the cause of the disease may be confused with a natural epidemic. This is most likely a question of limited surface targets or local operations, so that the outbreak of the disease cannot be traced, and is, therefore, ascribed to a natural epidemic.

Although the military utility of BW had been regarded as limited in the recent past, the situation has now changed. In his discussions concerning the growing threat of BW, Richard Latter, deputy director of Wilton Park Conferences, UK, mentioned that the revelation of an offensive Russian BW programme in 1992 and the discovery of Iraqi BW programmes and developments after the Gulf War have increased the urgency of this problem. A significant number of states are supposed to have active BW development programmes or weapons systems in place. Their views on how such weapons can be used may differ from the traditional view. Many countries developing BW are believed to be less concerned with their military use, whether tactical or

strategic, than their value as political weapons, for example, to deter interventions by neighbours or great powers possessing conventional military superiority. Implicit in this view is a readiness to target civilian populations. Besides being relatively cheap and quite easy to access, BW have the "advantage" that potential attackers cannot be easily identified. This might be one reason for the increasing concern that BW will also be used by terrorist groups.

BW are, in general, both simple and inexpensive to produce. On a small scale, production and handling involves only modest resources and premises. This implies that developing countries and terrorist organisations can also obtain such weapons. Limited production or preparations for production can easily be concealed and only a few people need to know of possible plans to use BW. Manufacture on a large scale is technically more complicated. However, today, throughout the world, large plants exist for the production of fungi, bacteria or viruses required for the manufacture of vaccines, antibiotics, single cell proteins or other food supplements. In recent years, production facilities, as well as technical knowledge for large-scale production, have spread so rapidly that an increasing number of people has become familiar with working with infectious material. Furthermore, due to the increasing scientific knowledge and the increasing applications of micro- and molecular biology, it is now possible to genetically design biological warfare agents by the so-called recombinant DNA technology with special properties for appropriate military or terrorist use.

One advantage of BW for a putative proliferator is the fact that there is no need to maintain large stockpiles. Having just a small culture stock of the pathogenic agents in question would be sufficient. Because of the fast growth of micro-organisms by the self-replicating process – every 20 minutes the number of bacteria duplicates – only a few days or perhaps a week is required to produce an adequate amount of material. On the other hand, some bacteria considered BW can produce a very special and extremely resistant form of life – the so-called spores – that allow them to survive in the most hostile environmental conditions. In this form, a BW can easily be stockpiled in large amounts for many years.

1.2 Characteristics of Chemical Weapons

In a 1969 UN report, chemical warfare agents are defined as "...chemical substances, whether gaseous, liquid or solid, which might be employed because of their direct toxic effects on man, animals and plants..." The Chemical Weapons Convention (CWC), however, defines Chemical Weapons (CW) in Article II, Definitions and Criteria, as follows:

"Chemical Weapons mean the following, together or separately:

- a) Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes;
- b) Munitions and devices, specifically designed to cause death or other harm through the toxic properties of those toxic chemicals specified (above), which would be released as a result of the employment of such munitions and devices; and
- c) Any equipment specifically designed for use directly in connection with the employment of munitions and devices specified (above)."

Thus, this definition of CW includes *all* chemicals except those used for civil or peaceful applications. Additionally the CWC states that tear gases are not considered as CW but their use for warfare is prohibited and that herbicides are also not permitted as a method of warfare according to "...the pertinent agreements and relevant principles of international law."

A CW system consists of three components:

- a CW carrier, e.g. an aircraft to transport the CW to the target;
- ammunition, e.g. a bomb or artillery shell to contain the toxic chemicals; and
- the toxic chemical, generally called a chemical agent.

Many conventional weapons systems – such as rockets, artillery shells, mines, and bombs – can be modified to disperse chemical agents.

Two kinds of CW exist: volatile or non-persistent chemicals, which contaminate mainly the air; and persistent chemicals, which render a terrain or installation unusable. CW can, therefore, be used as either an offensive weapon (volatile) or a defensive weapon (persistent).

Another classification system is based on their effects on humans:

- choking agents, e.g., chlorine and phosgene;
- blood agents, e.g., cyanide and cyanogen chloride;
- blister agents, e.g., mustard; and
- nerve agents, e.g., Sarin, Soman, Tabun, VX.

The two latter ones, blister agents and nerve agents, are the types used in the Iran/Iraq war and which are still present in large quantities in the stockpiles of Russia and the US.

Chemical agents can be produced by commercially available production equipment from the chemical industry, especially pesticide plants. Since the production of most chemical agents requires highly corrosive chemicals, the only specification that must be met is that the equipment be sufficiently resistant to corrosion, but many commercial chemicals also require this. For a country with a modest chemical industry, developing a CW capability is relatively simple. The chemical agent can be produced by the chemical industry and then filled in the ammunition plant into the modified ammunition. Facilities to produce chemical agents may be used for commercial products and vice versa.

The shelf life of a CW depends largely on the quality of the chemical agents. Some can be stored for a few decades; others will be effective only for months after being produced. There exists a new technology, binary weapon, which overcomes that problem. Two stable chemicals with relatively low toxicity are stored separately, and mixed only shortly before use, forming the highly toxic chemical agent.

A characteristic of CW is that it is quite easy to protect humans against them. This can be done either by individual protection equipment (protective mask, protective suit) or by shelters equipped with an air filter. Protection is practically 100% if applied properly. CW, therefore, have only limited effects on protected people in the sense that they only hamper their movement and have some psychological effects (fear of an invisible danger).

CW are considered tactical weapons. It is generally agreed that they could influence the shape and outcome of a battle. CW cannot be used to destroy the infrastructure of an enemy, but can be used to eliminate unprotected troops. The quantities needed are relatively high; to attack an airfield, the quantity of chemical agent needed is about one ton.

On the other hand, small amounts of CW can be used as a terrorist weapon. The sheer threat of shooting a CW-missile at a densely populated area, e.g. the capital of a country, would create a problem with true strategic dimensions. A similar effect would occur if a terrorist group blackmailed a company or state with the threat of using CW.

1.3 Differences between Biological and Chemical Weapons

One difference between BW and CW is that BW have a significantly larger potential area of effect than CW. Consequently, the potential impact of BW approaches that of nuclear weapons and can, thus, have strategic effects. Its potential advantages are that the quantities required are small compared with CW, and crosswinds can

covertly disseminate them. On the other hand, the effectiveness of the attack is dependent on meteorological conditions and the biological agent has a limited lifetime when exposed to sunlight and the environment.

CW have been widely used – the first time in World War I and the last time in the Iran/Iraq war. Moreover, CW have obviously been an accepted weapon throughout the 20th century and developments in CW in the US and Russia continued until the beginning of this decade. Both countries still hold large stocks of CW that are operational. BW, on the other hand, have fortunately not been used deliberately in overt biological warfare on a large scale. Despite rumours and allegations, it has not yet proved possible to confirm that BW have been used even on a small scale in more than isolated cases. Whether this is because BW have not actually been used, or whether they have been used successfully in covert form, is hard to say. However, the feasibility of the use of pathogenic agents as BW was proven and demonstrated long ago.

The production of CW needs some particular equipment and special precursors, and to be effective a certain quantity has to be produced. However, the technology to produce the chemical agents and the munitions is relatively basic. A country with a modest chemical industry and an ammunition factory is able to produce it; Iraq has proved it. BW, on the other hand, are easy to produce from culture collections or naturally occurring pathogenic micro-organisms without special equipment. As exaggerated in Roosevelt's "Germ War" in 1986, manufacturing a lethal biological warfare agent requires little more than chicken soup, a flat whisky bottle and a source of seed culture. Of course, this may be true only for small-scale production. Nevertheless, the widespread technology available for applied microbiological production in the food or pharmaceutical industry is also suitable for the production of biological warfare agents in large amounts.

Another difference lies in the nature of the two weapons agents. Chemical agents have practically no civil or peaceful applications. With current sophisticated analytical tools, if the presence of chemical agents is detected, it is proven that CW are present – either in a production plant, an ammunition stock or on the battlefield. In contrast, biological warfare agents, in general, are naturally occurring microorganisms that are endemically present in the environment. Therefore, even if somewhere a potential BW has been isolated and characterised, it is by no means certain that a deliberate use of BW has taken place. This is a problem that the United Nations Special Commission for Iraq (UNSCOM) is now confronted with. Sample analyses from different sources in Iraq have revealed the presence of the classical BW, *Bacillus anthracis* (anthrax). However, *B. anthracis* is endemic to the whole

Gulf region. Therefore, no clear statement regarding the production or use of BW by the Iraqis can be made.

Furthermore, CW are toxic chemicals and BW are living micro-organisms. CW can be immediately detected with simple portable equipment. CW have almost instantaneous effects but protection is relatively simple, cheap and reliable. Decontamination of the affected area is possible by relatively simple means and again, the efficiency of decontamination can be checked with simple technology.

BW do not have an immediate effect after their use. Because pathogens must first enter the host and then grow to a certain cell density within the host, there is a lag phase between use and the first symptoms of several hours to a few days. In most cases, these symptoms may be the first hint of the presence of BW. Afterwards, an appropriate suspicion could be verified quite easily by the available diagnostic methods, although a simple hand-held and easy-to-run detector for BW does not (yet) exist. It is more difficult to detect BW before the outbreak of a disease. In contrast to the protection against CW, protection against BW may be more convenient with the prophylaxis of vaccination. Vaccines are available for immunisation against the known biological warfare agents. Recently, the US has decided to immunise their troops against anthrax. This project involves about 2.4 million soldiers and will cost \$130 million. One big problem following a deliberate release of BW would be decontamination. The biological warfare agent could spread over a large area and survive a very long period. Therefore, the control and decontamination of an affected area might be very difficult.

2 HOW CAN THE THREAT POTENTIAL OF CHEMICAL AND BIO-LOGICAL WEAPONS BE ASSESSED WITH RESPECT TO OTHER THREATS TO INTERNATIONAL SECURITY?

With the end of the Cold War, the threat to international security has changed considerably. The two blocs have disappeared and with them the danger of a confrontation between the two superpowers and the danger of a third world war. Now, the threat has shifted to regional, national and subnational conflicts. Additionally, other dangers have become more important: organised crime, terrorism, migration, electronic sabotage, and unconventional non-lethal weapons. Nowadays the reason for a conflict is often ethnic or economic (Bosnia, Tajikistan, Central Africa, etc.).

CW have not yielded a decisive victory since World War I. In the Iran/Iraq war, they were certainly an important factor, but probably not decisive. Some believe that the

Germans could have defeated the Normandy invasion with the use of nerve agents; nevertheless, CW had not been used during the entire war.

By World War II, the development of BW was in its infancy, while that of CW was in its adolescence. This may partly explain why most of the leaders during World War II did not believe in their effectiveness. Since then, huge technological developments have occurred and more effective and lethal chemical and biological (CBW) weapons have been developed, together with more sophisticated delivery systems. The worldwide spread of the civil chemical and biotechnological production has multiplied the proliferation risk and regional political instabilities have contributed to the fact that several states have acquired the technology for the production of CBW.

Some analysts believe that in a regional conflict the chances that CBW will be used are relatively low. One reason might be that CBW are outlawed. Another is that CW must be used in large quantities to be effective, and the effects of BW are relatively unknown. Additionally the enemy might be protected against these weapons, and if he is not prepared he might get assistance through the Organisation for the Prohibition of Chemical Weapons (OPCW) assistance programme. It might, therefore, well be that most countries might judge that conventional means are overall more cost effective than CBW. They might choose to keep the CBW option as a last resort weapon. In this case, they do not even need to possess the weapon; the sheer rumour might suffice to obtain the desired effect.

However in certain cases or certain types of conflicts (ethnic war, civil war, terrorist attacks, organised crime), the situation can be quite different. Participants in such conflicts may be outlaws and they have no scruples using illegal weapons, such as CBW. Furthermore, CBW have a much greater ability to create panic and chaos, which is one of the goals of such a conflict, than conventional weapons.

It is generally accepted that the chance of CBW being used in a conventional conflict between States is, and will remain, relatively small whereas the chance that terrorist groups use them becomes greater. The possibility that biological materials may become attractive to substate actors, splinter groups or terrorists cannot be discounted. The incidents in the Tokyo subway in March 1995 clearly show the widespread impact of quite limited chemical contamination, at least from the publicity viewpoint. The Aum sect had also been considering the use of biological materials to further its aim. Yet compared with the danger of the use of conventional weapons, the overall chances for an employment of CBW are still orders of magnitudes smaller. Saddam Hussein refrained from using CBW in the Gulf War not because he feared retaliation in kind, but because he feared retaliation of greater magnitude (conventional weapons).

However, one of the most serious concerns remains the uncertainty of the impact of new technologies on the development and production of biological warfare agents, including toxins. The biotechnology required for new agent development is now well within the ability of emerging states, particularly in the Middle East. Unlike the production of conventional CW, the capability in biotechnology and especially rDNAtechnology does not necessarily indicate anything unusual. New biological agents may be developed behind the facade of a normal medical R&D programme.

3 WHY DID ELABORATION AND CONCLUSION OF THE CWC BECOME POSSIBLE IN THE LATE 80S – EARLY 90S? WHY WE-RE LONG DISCUSSIONS AND NEGOTIATIONS ON CW DISAR-MAMENT INEFFECTIVE IN THE 70S – EARLY 80S?

Efforts to ban CW were based on the Geneva "Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare" concluded in 1925. Unfortunately, this Protocol, although banning the use of CW, does not prohibit their development, production and stockpiling. Many countries ratified the Protocol only after World War II (e.g., Japan 1970, US 1975).

The idea of a comprehensive ban started to grow in 1968-69 after a report by the UN Secretary General on chemical and biological weapons. This report was at least partly the result of the massive use of herbicides and tear gases by the US troops in Vietnam. In 1969 the "Conference of the Committee on Disarmament" (formerly the "Eighteen Nations Disarmament Committee") in Geneva started discussion of a treaty for a comprehensive prohibition. This Geneva-based Conference was consecutively renamed "Committee on Disarmament" (1969) and finally, now exists as the "Conference on Disarmament" (CD, 1984).

In the early years from 1969 onwards, discussions were mainly focused on the problem of whether the treaty should cover all categories of weapons mentioned in the Geneva Protocol or initially only the Biological and Toxin Weapons. The western countries preferred a two-step approach – first the BWC and later a CWC, whereas the socialist block and the non-aligned countries aimed at a convention comprising all categories. The argument of the western countries was that a BWC would be easier to achieve due to the fact that BW have never been used and were then generally considered as militarily much less significant than CW. In July 1969, the UK presented a draft convention on a comprehensive ban of BW, which, however, did not contain a verification mechanism. Two months later, the Eastern block presented a draft for banning BW and CW in one single convention. After lengthy discussions in 1971, the socialist countries finally accepted the idea of separate treaties. Following bilateral negotiations between the Soviet Union and the US, the two countries presented a draft BWC to the Geneva conference. Following negotiations, this draft ultimately led to the BWC that is now in force and was opened for signature on 10 April 1972.

The preamble to the BWC states that it is "a first possible step toward the achievement of effective measures also for the prohibition ... of chemical weapons" and in Article IX: "Each State Party to this convention affirms the recognised objectives of effective prohibition of chemical weapons and, to this end, undertakes to continue negotiations in good faith..." From 1972 onwards, different proposals for a CWC had been presented in Geneva, but none of them attracted much attention. The UK draft in 1976 contained the idea of a verification regime by an international organisation. Because there was a general feeling that the Soviet Union would never accept an intrusive verification regime, nobody really pushed for substantive negotiations.

Parallel to the multilateral talks at the Geneva Committee on Disarmament (CD), the US and the Soviet Union had also started bilateral negotiations in Geneva on CW disarmament. These negotiations continued into 1980, but with limited progress. The Disarmament Committee was briefed yearly, but these bilateral talks left the CD with only a secondary role. One massive obstacle was the verification regime: the Soviet Union argued that international inspections would legitimise spying, whereas the Western countries insisted that the CWC must have some international verification regime.

In March 1980, the CD established a working group to elaborate a convention text. This working group, later named the Ad Hoc Committee, continued its work until the conclusion of a generally accepted text in 1992. The work had several ups and downs. In 1984, three important papers were tabled at the CD by UK, the USSR and the US that gave the negotiations some impetus. The US proposal contained basically all the current elements of the treaty text including the element of the challenge inspection with the famous phrase "anytime, anywhere, with no right of refusal". In 1985, the Soviet Union accepted the principle of systematic on-site inspections, which finally opened the way to substantive negotiations and finalisation of the CWC.

The history of the CWC negotiations consists of two parts – the first from 1972 to the late 1980s, and the second until the conclusion in 1992. Negotiations during the

first part were governed by the atmosphere of the Cold War and the antagonism of the two superpowers.

In the 60s and beginning of the 70s, multilateral arms negotiations had some success. In the 70s and 80s, in talks concerning nuclear arms limitations, the Americans and Soviets preferred bilateral negotiations. Furthermore, CW disarmament clearly then played only a secondary role compared with nuclear weapons. Some believe that the reason the CWC negotiations became a real issue in 1980 in the CD was the stall in trilateral negotiations of the comprehensive test ban treaty on nuclear testing (CTBT). The group of non-aligned countries in the CD wanted some progress in the CTBT and tried to bring it into the CD forum. In order to give the CD a part to play, the Western States preferred to bring the CWC negotiations back into the CD rather than the CTBT.

The reason the negotiations were slow in the mid-80s, was the fact that when introducing the concept of challenge inspection, the US never really believed that the Soviet Union would accept that proposal. So when it accepted it, the US had to reconsider its initial position in the light of concerns about its own sensitive facilities. It took a considerable time – until 1991 – to reshape the challenge concept in order to meet mainly western concerns about confidentiality.

Only after the atrocities resulting from the use of CW by Iraq became publicly known, and after the Cold War had ended, did negotiations accelerate. The Western States started to be much more worried about universal proliferation of CW than about cheating by the Soviet Union, now the Russian Republic. Russian and American interests began to coincide in many aspects, while certain developing states would now try to weaken the verification regime. With the introduction of the "managed access" concept by the British this hurdle was overcome, so that with the pressure of the latest Chairman of the Ad Hoc Committee, the German Ambassador von Wagner, the text was ultimately accepted by all members of the CD in August 1992.

4 ASSESSMENT OF THE EFFECTIVENESS OF THE CWC AND THE BWC. WHAT ARE THE DIFFICULTIES WITH THE IMPLEMEN-TATION OF THE CONVENTIONS?

4.1 The Biological Weapons Convention

The Biological and Toxin Weapons Convention (BTWC or BWC) prohibiting the development, production, acquisition and stockpiling of BW entered into force in 1975. The BWC is the further stage of the 1925 Geneva Protocol, which only prohibits the use of BW and CW. Although, at the time of entry into force, the BWC was the first and most far-reaching treaty that outlawed an entire category of weapons of mass destruction, there was an outstanding weakness within the Convention: Its provisions for verifying compliance were completely inadequate. Whereas the successive Review Conferences have re-emphasised the basic prohibition of the BWC and have confirmed that all developments in microbiology, biotechnology and rDNA technology (genetic engineering) are embraced by the Convention thus reinforcing the international norm prohibiting BW, it was more recently, that the need to strengthen the BWC has been recognised. A series of politically binding confidencebuilding measures have been taken. In addition, progress is made towards a system of measures to strengthen the Convention. Following the Third Review Conference in 1991, a group of governmental experts (VEREX) met to consider potential verification measures from a scientific and technical viewpoint. The final report of VE-REX, with its 21 verification measures, was the basis for the work of the Ad Hoc Group of the BWC, which has the mandate to negotiate the future verification regime.

Besides the lack of verification mechanisms, the BWC has other loopholes that arise from the nature of biological production and its dual-use character, and from the fact that research, development and production of pathogenic micro-organisms, which could possibly be used as BW, are still permitted for peaceful purposes. Article I of the Convention states that only activities with microbial or other biological agents or toxins, whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes are prohibited. This Article is problematic because it allows a wide range of interpretations. It is not clear which quantities justify defensive activities. There are no threshold quantities indicated within the Convention. States Parties with the intention of maintaining a BW programme can circumvent the provisions of the BWC by stressing this point. At the moment, it is almost impossible to condemn a suspicious State Party due to this loophole. As reality has shown, the former Soviet Union was not accused after the anthrax outbreak in Sverdlovsk in 1979 from a laboratory complex that was obviously involved in an offensive BW programme. Another problem also stems from Article I of the Convention, which states that the acquisition of weapons, equipment or means of delivery designed to use biological warfare agents for hostile purposes is prohibited. It is a fact that most of the equipment in biotechnology and microbiological large-scale production industry is of dual-use nature. A distinction between civil (defensive) and military (defensive, offensive) use is not feasible because the production steps are similar and the equipment is essentially the same. Production plants for vaccines, antibiotics or even food products, such as dairies or breweries, can be used for the production of BW without appreciable adaptations.

The Ad Hoc Group is now trying to overcome the weaknesses of the BWC with a system of mandatory declarations, reinforced by inspections. Such a verification mechanism has been already built into the CWC. Considerable thought is given to ensuring that the scientific, technical and administrative implications of any future arrangements are consistent not only with the objective of strengthening the Convention, but also with the needs of academic institutions and industry. To negotiate and establish a regime that will strengthen the Convention and its deterrent effect, while taking care not to hinder legitimate scientific and technological applications, is an ambitious task. There are still many difficulties for a final agreement to be an effective, legally binding system of compliance-monitoring for the BWC. As outlined in a paper about preventing biological warfare by Malcolm Dando, Professor of International Security, University of Bradford, and Tony Phillips, Technical Adviser to the UK Government on CB Non-proliferation, CBDE Porton Down, some states have doubts about the extent to which the Convention is effectively verifiable, particularly when valuable, commercially confidential information and national security data must be safeguarded during intensive inspections. Opinions also vary on the extent to which technological cooperation should be addressed in moves to strengthen what is primarily a disarmament treaty, particularly as the two decades of the BWC have seen the evolution of many other international initiatives, such as those under the aegis of the Biodiversity Convention, which furthered technological cooperation in microbiology and related technology fields. Apart from the Convention itself, the export licensing arrangements of some countries, and especially the controls harmonised within the Australia Group of industrial countries, have been attacked by a minority of States Parties. The Australia Group countries originally began co-ordinating efforts to restrict the proliferation of CW, and subsequently extended these controls

to cover lists of pathogens and toxins and some types of dual-use biological production and handling equipment. It appears, however, that many States Parties see both the value and potential effectiveness of a comparatively straightforward and low cost verification regime operated under the BWC.

4.2 The Chemical Weapons Convention

The CWC entered into force in April 1997 and until now 121 States have ratified or acceded to it. This means that it is certainly no exaggeration to say that the CWC has become a truly universal Convention. After more then almost two years it has also become clear that the start up of the OPCW has been successful. The Technical Secretariat with its inspectorate is operational and has recently moved into its dedicated building. On the other hand one can also say that it is too early to judge the effectiveness of the Convention. The general expectation is that the CWC will reduce the CW threat but a judgment will only be possible after several years.

There have been arguments that the convention is not really 100% verifiable. This is certainly true – the cost of such a regime would be exorbitant – but even an imperfect verification regime is a verification. Former US Congressman H. Martin Lancaster said in one of his speeches, "although no treaty is 100 percent verifiable, the CWC's extensive verification measures will significantly increase the chances that a violation will be detected, raising the political cost of illicit chemical weapons activities and thus helping to deter them."

Some experts argue that for proliferation control, the Australia Group export control regime is much better suited. But it has to be taken into account that for certain goods, more than 50% of the total quantities are produced and traded outside the Australia Group. Export control of such goods can, therefore, not prevent the delivery of huge amounts of these goods without any control. On the other hand, the CWC requires *all* States Parties not to deliver certain chemicals to non-States Parties after the third year of entry into force.

Perhaps the CWC will develop its effectiveness only with time. It is certainly true, that a country could continue to clandestinely produce and stockpile CW, but if that same country is a State Party of the CWC it will be very difficult for it to maintain the necessary momentum for a clandestine CW production and at the same time, establish a national organisation for the implementation of the CWC.

4.2.1 Problems with the implementation

Routine inspections performed in the declared facilities are, in fact, mainly confidence building measures and, as such, relatively expensive. The OPCW spends a considerable part of its funding on these routine inspections.

Challenge inspections are extremely unlikely to occur because the negative outcome of a challenge inspection might have a deleterious political impact. First, if the inspection leads to the conclusion that the charges were wrong, the challenged country will be in a sense automatically (but possibly wrongly) whitewashed. Second, if the challenge inspection proves that the challenge was unfounded, the challenged country might use this fact politically against the challenging State Party and even further, might ask for financial compensation.

On one hand, the CWC is very detailed and complicated, but on the other hand, many important provisions are still open to interpretation for its practical implementation. Unfortunately there are still lengthy discussions about the practical implementation of the verification regime. As an example, the CWC stipulates that declarable chemicals at *low concentrations* need not to be declared, and that the Conference of States Parties has to establish guidelines to implement this provision; these guidelines have still not been finalised. These problems are foremost a matter of political will. As long as a considerable number of countries are not convinced that the CWC is for the benefit of all participating States Parties, the problems will not be solved.

Although the CWC definition of CW includes *all* chemicals except those used for civil, peaceful applications, it also contains three Schedules of chemicals, "... for the purpose of implementing this Convention ...". Unfortunately, one already notes a tendency that the original broad definition of CW is narrowed to the scheduled chemicals, which leave the whole field of chemicals not contained in the Schedules outside the CWC and its verification regime.

A significant number of States Parties, even almost two years after entry into force of the CWC, still have not established legislation for national implementation. Thirty percent of the States Parties have still not yet delivered their initial declarations, or parts of it, due 30 days after entry into force of the Convention. The consequence is that inspections in these countries are not possible as long as the declarations have not been submitted, and therefore compliance cannot be verified.

One of the important difficulties in implementing the CWC is the misjudgment by many governmental administrations of the intrusiveness of the inspection. Many governments are afraid that the inspections will lead to a loss of confidential business information. They ignore the fact that the chemicals concerned by the CWC schedules are not "high-tech chemicals", but relatively simple molecules with very little particular production know-how involved. Furthermore, the inspection goals do not require that the inspectors gain knowledge about the process details of production. The second fear is that inspections will place a significant burden on the inspected industries. This is not the case, since Chemical Industry facilities are used to inspections, receiving them rather frequently for environmental, quality, safety or customer reasons. It is evident that time is needed to allow the verification regime to be fully established.

5 WHAT SHOULD BE DONE FOR A MORE EFFECTIVE IMPLE-MENTATION OF EACH CONVENTION?

5.1 Improve the effectiveness of the implementation of the BWC

Since the recognition of the obvious weaknesses of the BWC and the willingness of the States Parties to strengthen it with an additional verification regime, a decisive step toward a more effective Convention has been made. Today, it is no longer a question of whether a verification regime shall be implemented to strengthen the BWC, but a question of when and with which concrete measures. The time frame for the settlement of the Protocol was given by the 4th Review Conference of the BWC in 1996. By the 5th Review Conference to be held in 2001, the Ad Hoc Group must finalise the Protocol. However, the chairman of the Ad Hoc Group, Ambassador Tibor Toth, intends to bring the negotiations to an end as soon as possible; this will probably be in 1999 or more realistically in 2000. Although the skeleton of the future verification regime has been accepted with the introduction of a so-called rolling text, there are still many problems in the details. It seems obvious that a strengthened BWC must provide an intrusive measure to clarify putative non-compliance and take action against violations. On the other hand, there must be an instrument for establishing confidence and transparency.

The regime, which shall stand on the three pillars of mandatory declarations, verification visits and challenge inspections, will not only improve the deterrent effect of the BWC itself, but also build an atmosphere of increasing transparency and confidence among all Member States. In that context, the visits are very important. Visits must bridge the gap between the off-site measure of declarations and the last resort on-site measure of challenge inspections. Where necessary, they can be used for clarification without setting up intrusive challenge inspections. Furthermore, visits improve the importance of adequate and correct declarations. Because most States Parties wish to have professional and independent experts for inspections, visits can also serve as a training field for inspectors. Therefore, a verification regime without visits is inconceivable. With the additional incorporation of measures to better implement Article X (which stands for technology transfer) of the Convention, third world countries, above all, may see the long-term benefit of participating in banning BW by international law. The implementation of Article X in the framework of the future verification regime is important because, among other things, it can regulate international cooperation in combating infectious diseases, the major killer in the world today. As underlined by the Federation of American Scientists, this will increase every Party's stake in the Convention and help engender the good will and commitment needed to make a compliance regime fully effective.

It is clear that despite a comprehensive verification regime, the BWC is not able to prevent all potential misuse of biological warfare agents for hostile purposes. Terrorists, either individuals or subnational groups, would not care about any international convention. This has been shown by the Aum sect. However, a strong Convention with inherent verification measures will create a network of surveillance that makes it very difficult for proliferating states to hide their ambition. On the other hand, it is also clear that there should be no intention to hinder the development of the new and promising biotechnology industry due to an intrusive verification regime. In fact, this is the reason that only the most relevant industrial biotechnology sites or facilities with microbiological production capability, besides military defensive programmes and facilities, shall be recognised by the concept of declarations. With the application of additional "filters", such as "managed access" or other confidentiality provisions, it should be possible to protect commercial confidential proprietary information during on-site measures.

Despite additional verification, one weakness of the BWC still remains – the problem of the distinction between defensive and offensive BW programmes or activities. There is no clear definition of what defensive and offensive exactly means. For instance, it is obvious that vaccine production belongs to the category of defensive activities. However, research and development work with pathogenic agents or toxins could be either defensive or offensive, depending only on the intention. It is impossible to draw the line between permitted and prohibited activities, not least because of the dual-use character of the equipment. Rather than insisting on the prohibitory aspect of the Convention, it is more important to build up confidence and transparency to counteract this weakness. This can certainly be achieved in the near future by the implementation of the verification regime.

5.2 Improve the effectiveness of the implementation of the CWC

The general feeling of the world's disarmament community is that the CWC, as it stands now, is the best possible disarmament treaty in the current political situation. It is unique since it is global, non-discriminatory and verifiable. The main problem concerning the CWC does not lie in the Convention itself, but in its implementation.

The three cornerstones of the CWC are:

- the destruction of all CW and CW production facilities;
- the declaration and verification of the dual-use chemical industry; and
- the challenge inspection.

In order to assess the implementation of the CWC, one must differentiate between temporary technical difficulties and real problems. In the following discussion we will discuss those problems which we consider to be crucial for implementation.

5.2.1 Destruction of CW

Before entry into force of the CWC only two countries have openly admitted to posses CW, namely USA and Russia (besides Iraq, whose CW are in the meantime supposed to be completely destroyed under supervision of the UNSCOM). With the entry into force of the CWC this picture has changed: Two more States, namely India and the Republic of Korea ("South Korea") have declared to posses CW, although relatively modest amounts compared to the US and Russian stockpile. Additionally, Iran has admitted that it had run a CW development programme in the past. These declarations in itself are a success of the Convention, which is invaluable.

Among the States Parties of the Convention there is consensus about the obligation to destroy all CW. There seems to be no major problem in reaching this goal within the set time schedule, with one major exception – the Russian Republic. Although the Duma has ratified the CWC and agrees, in principle, to destroy all Russian CW, the lack of adequate financial means has prevented the start of an effective destruction programme. Without massive financial support from outside, such a programme will never get off the ground.

In the Duma, resistance to the CWC is persisting and there is still resistance in the regions where destruction facilities are supposed to be built. The population fears that the destruction will be done in a careless and messy way, and therefore, asks for guarantees that this will not be the case. Additionally, there seems to be a prerequisite that the destruction in Russia be done with Russian technology, which is not yet

ready for industrial applications. In addition, western countries also doubt that financing this development of Russian technology is opportune.

In conclusion, the global acceptance of the CWC would be seriously impaired if a way were not found to destroy Russian CW within the set 10 years, or at least 15 years after entry into force of the Convention.

5.2.2 Declaration and verification of the dual-use chemical industry

As mentioned in a previous chapter, 30% of the States Parties have not yet completely fulfilled their obligation to submit their initial declarations, particularly the industrial declarations, which were due 30 days after entry into force of the Convention. Among those 30% are important countries like Iran, Pakistan and the USA. At a first glance, this might seem to be a minor problem; however, it can have serious effects: The absence of declarations makes it impossible for the OPCW to perform inspections in the respective country. For example, the US is almost two years after entry into force of the CWC not able to put in force a national implementing legislation. This demonstrates in the eyes of many countries that the superpower is not really committed to the Convention, which in turn, begins to erode the commitment of other nations.

The problem behind the difficulties of the US in implementing the CWC is the conflict between the openness required by the CWC and the confidential nature of certain information that must be given in the declarations or during inspections. This is also a problem for many other countries. The basic philosophy behind the CWC is to create transparency concerning all activities related to CW programmes and their key precursors. Most countries, including the US, have no problem being open regarding the CW programmes. The real problem is the need for transparency in the area of dual-use precursors, since the chemical industry is involved there. In the future, it will be important to find the proper balance between transparency and confidentiality in the OPCW. Strangely enough, the chemical industry has in general less of a problem with openness than the national bureaucracies. To industry, it is clear that the information, which must be given to the OPCW, is basically not confidential. In this initial phase, administrations in many countries have a tendency to overemphasise confidentiality. These countries will need to adapt and learn how to cope with the conflicting interests of transparency and protection of confidential business information over the next few years.

5.2.3 The Challenge Inspection

The original idea during the negotiations of the CWC in Geneva was that the challenge inspection be one of the main pillars of the Convention. It is generally accepted that the concept of routine inspections is a confidence building measure rather than a tool to find evidence of illegal CW programmes. The challenge inspection is more appropriate for this latter goal.

Presently, there are several States Parties that, at least unofficially, accuse other States Parties of still working on secret CW programmes. It is astonishing that now, almost two years after entry into force, no challenge inspections have been initiated (See Chapter 4.2). There are allegations that States Parties are working clandestinely on CW, but no one is challenging them officially. If this does not change in the near future, there is a danger that the concept of challenge inspection will become a failure and that one of the main pillar of the Convention will collapse.

5.2.4 Other Crucial Problems

A fundamental problem of the CWC is the absence of many critical countries, such as Kazakhstan, Kyrgystan, Azerbaijan, Afghanistan, Israel, Egypt, United Arab Emirate, Syria, Iraq, Libya, Sudan, Malaysia, Thailand, Myanmar, Cambodia, North Korea, Colombia, and FYR, furthermore many of the countries in Central Africa. Efforts are underway to bring these countries into the OPCW, but unfortunately there is little incentive for them to join the Convention. Prohibition of trade in Schedule 1 and 2 chemicals gives them little motivation to ratify the convention. Only the countries with highly developed chemical industries have a significant need for these chemicals. Other countries, which do not trade these chemicals, will not be hurt by this ban (which will enter into force May 2000) at all.

During negotiations in Geneva, one of the assumptions was that abandoning the CW option by non-CW possessors would be balanced by the incentive of technology transfer. Unfortunately, very little has been done – and probably can be done with this respect. Therefore, there is a widespread feeling in many countries that this balance has not been achieved at all; they have been giving away the option of CW without gaining anything. There is an urgent need to find ways to re-establish this balance. For this reason the OPCW is, with the collaboration of the State Parties, in the process of building up an international cooperation programme which should remedy the situation.

Furthermore, there is a problem with reservations. Although Article XXII stipulates that no reservations are possible, the US Senate has expressed what could be considered "reservations". In one of his recent articles, Ahmad Kamal, the Permanent Representative of Pakistan to the United Nations, wrote the following statement with respect to these reservations:

"The United States has taken the position that no sample collected in the US pursuant to the Convention will be transferred for analysis to any laboratory outside the territory of the US, and that the search of any US facility by OPCW inspectors would require a judicial warrant first from a US court. The first of these [reservations] negates the concept of anonymity in chemical sample analysis, which ensures the credibility of results. The second negates the fundamental concept of 'anytime, anywhere, without the right of refusal' which underlies the entire verification system of the convention."

The view that at least some of these conditions, which have been passed by the US Senate, are incompatible with the aim and spirit of the Convention is widely shared. A solution to this problem is urgent, since the solutions to a series of other problems depend on it.

Another point that must be reviewed in the near future is the cost of verification. It will be one of the major challenges of the OPCW to develop a stringent but cost efficient verification system which matches the balance between transparency and respecting the confidential nature of certain information.

Yet before questioning the effectiveness of the CWC, we must give this Convention a chance to get "off the ground". It will not be before the first review conference at the end of the fifth year after entry into force, that some conclusions can be drawn.

6 WILL THREATS FROM CW AND BW GROW IN THE LONG-TERM? WHAT APPROACHES AND MEASURES ARE RECOM-MENDED FOR THE FUTURE?

6.1 **Biological Weapons**

It is generally assumed that the threat from BW will increase in the near future. The biological threat has been recently singled out as the one major threat that could still inflict widespread catastrophic effects on a theatre-deployed force. This is not least due to rDNA technology, by which it is possible to construct new, genetically engineered biological warfare agents with special properties that make their military use

more convenient and efficient. It has been suggested that rDNA technology might facilitate weaponisation by rendering micro-organisms more stable during dissemination, for example by increasing their resistance to high temperatures and ultraviolet radiation. Biological agents might also be genetically modified to make them more difficult to detect by immunological means and insusceptible to standard vaccines or antibiotics. There is a great fear that, on one hand, such new BW could be used in future conflicts or, on the other hand, that a genetically modified micro-organism for warfare might leap out of control of its inventors, leading to a world-wide catastrophe. But even its peaceful applications have engendered fear of genetic accidents unleashing an epidemic of some hitherto unknown disease against which mankind would have no immunity. An uncontrollable pathogenic agent would certainly lead to a horrifying scenario. However, there are also other factors that turn the rDNA techniques into a dangerous tool for the development and production of new potential biological warfare agents.

One of these factors, less obviously recognised as a risk concerning biological warfare agents, is the increasing knowledge coming from basic molecular research. An increasing number of laboratory groups are dealing with rDNA technology and genetic engineering. In Switzerland, in the past ten years, this number rose from 50 to nearly 800 in 1996. Many research projects are underway to analyse the mechanisms of virulence, resistance, pathogenicity and other properties of micro-organisms that are of concern to human health. One of the most ambitious projects is the sequencing of the entire genome of the human being. This huge international project is called HUGO, where HUGO stands for the organisation behind it, namely the Human Genome Organisation. The aim of this project is to provide insight into the organisation and function of our genetic makeup, and in the course of this work, to base physiology and medicine on solid molecular foundations in order to provide the biochemical basis for understanding hereditary diseases, the mechanisms of immune response and of carcinogenesis, such as the appearance of cancerous tumours. The genome project has required great effort to build up compatible and accessible databases to store information gathered from many different sources and acquired in various contexts by a variety of methods. These databases will be available to all scientists and may, thus, constitute a valuable basis for openness on the work done in the whole project. But at the same time, this open availability of information also presents considerable risk of misuse. Other genome projects also generate much sensitive information; for example, the sequencing of the genome of Francisella tularensis, a classical biological warfare agent.

Another risk arises from the growing biotechnology industry and its production capabilities, such as know-how, technology and equipment, most of which are dual-use. The civil microbiological production capabilities can be switched over from peacetime missions to the production of pathogenic micro-organisms. The dual-use character, with legitimate applications in commercial fermentation and biotechnology industries, is the fundamental problem in countering the proliferation of biological and toxin weapons. Many developing countries have acquired industrial microbiology plants for the production of fermented beverages, vaccines, antibiotics, ethanol (from corn or sugar cane), enzymes, yeasts, vitamins, amino acids and single cell proteins as a supplement for animal feed. This global expansion of the civilian biotechnology industry, combined with the growing number of well-trained molecular biotechnologists, has created much broader access to the expertise and equipment needed for the development of biological warfare agents. Sophisticated laboratories that might be used for the design of novel BW is relatively inexpensive compared, for instance, with nuclear weapon plants. Moreover, the development and production technology for putative BW is information-intensive rather than capital-intensive, and much of the relevant data are available in published scientific literature. For these reasons, it is virtually impossible to prevent the diffusion of weapon-relevant information to those states which are a proliferation concern. It has been estimated that more than 100 countries now have the capability, if not necessarily the intent, to develop at least crude BW based on the available new technology.

In addition, a mounting threat or risk comes from another aspect of biological agents. While the world population is still growing with its increasing demand for food from animals and crops, new and re-emerging diseases will become of greater concern. According to the presentation from Robert Tauxe (CDC, Atlanta) at the annual assembly of the Swiss Society for Microbiology in 1998, each year one new pathogenic agent can be detected. The increase of pathogens, which can cause nasty diseases such as Ebola, is alarming because of the lack of effective treatment. Another problem is the rapid spread of bacterial resistance to antibiotics, which is also a recognised tendency. Of course, this sort of threat is not comparable with the threat of the military use of biological warfare agents, however, the outcome can still be a tremendous epidemic with the same effect as the use of BW. If BW were even used covertly, it would be very difficult to make any distinction between a naturally occurring outbreak of a disease and a deliberate military action. Therefore, it is essential to also take new and re-emerging pathogens into consideration, in assessing the threat of BW and pathogenic agents in general.

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and credible BWC. This will also remain important in the future. Although a treaty such as the BWC can never exclude the misuse of biological agents for hostile purposes with 100% security, it is undisputed that measures bound by international law have a deterrent effect. A BW Convention will have some deterrent effect on those who adhere to it. The strengthening of the BWC will further contribute to easing the burden of dealing with the relatively small minority of putative proliferator states. A similar important measure is the establishment of a close-meshed and worldwide net of epidemiological surveillance. A collaboration of all relevant institutions is the aim and is already well underway. For instance, WHO, OIE and FAO have successfully established effective working relationships over time with individual countries, which provide timely information to the organisations on the changing situation in their countries. The fundamental role of these organisations is to alert the global community to outbreaks of disease and to counter them. They have developed their relationships with states to acquire and disseminate information about outbreaks of disease and to establish global epidemiological networks. The work of WHO, OIE and FAO will also be of immense value for the future verification regime of the BWC, as outlined by Graham Pearson, the former director general of CBDE, Porton Down, UK. However, their political independence must be untouchable. It would be inappropriate for any of them to be asked to undertake a monitoring or other role on behalf of the BWC, since this could compromise their neutrality.

Another important measure required to face the threat of BW is the development of national biological *defence* concepts, including sophisticated civil defence programmes with a functioning public health system. Improving biological defence and protection will raise the threshold of difficulty for potential proliferators, and ideally will reduce the effectiveness of BW to the point where they are no longer worthwhile. There is a need to improve detection and warning systems to enable populations or targeted troops to react. Additional approaches include improving physical protection, development of effective vaccines at low cost and establishing effective therapy techniques to be used after contamination.

6.2 Chemical Weapons

CW were widely used in World War I. However, since then, they have only been used a few times, and always against unprotected military or civilians. Although chemical technology has evolved considerably since the first appearance of CW, the chemical agents have not changed fundamentally and it is unlikely that in the future this will change. New warfare agents with increased toxicity might be found. However, the fact remains that, first, it is relatively easy to protect people from the effects of CW and, second, one needs to transport considerable amounts of toxic agents to the target site. As long as most countries maintain modern means to protect their troops, and possibly their civil population, the chances that CW will be used are relatively low. With the increased precision and effectiveness of conventional shells, bombs, rockets and missiles, the use of CW may no longer pay off for most of the countries. On the other hand, for those countries with a relatively low state of preparedness against CW and to whom access to modern weaponry is denied, for political or financial reasons, it might still be a weapon of choice, particularly for those who have been classified as rogue states.

The general assessment of most experts is that in the long term, the threat of CW being deployed in a regional conflict is small, as long as the states maintain a certain preparedness in CW protection. However as mentioned in Chapter 2, the chance remains that CW will be used in other types of conflicts, such as ethnic and civil wars. Those CW may not necessarily be "classical" CW, but could be any type of toxic chemical. Although the physical effects of such an improvised attack could be relatively limited, the psychological effects could be tremendous. The "chemical" smell alone, associated with a detonation, could create panic, and thus the desired effect.

Nevertheless, the threat deriving from the huge amounts of stored CW in a number of States and the threat of the use of CW by some aggressors, as recent history shows remains. The CWC does not indicate an end to the CW. However for a State Party of the CWC, the ethical and moral pressure not to use CW has increased considerably. At the political level, the States Parties must continue to co-ordinate their activities against CW and maintain international pressure on non-signatories to accede to the treaty or on signatories to ratify it. Thus, in an armed conflict, the adversary will have no doubt that the use of CW would have a massive response.

The question remains if terrorist groups will use CW again. CW have certain advantages over BW for use by terrorists. The equipment and precursors, at least for certain CW, are relatively easy to procure; production methods are relatively simple; effects are almost instantaneous; the chemicals can have a relatively long shelf life; and the means of delivery is relatively easy. In comparison, theft or production of a nuclear device is extremely difficult, and the effects of BW are inherently unpredictable.

One can only speculate on why terrorists (and criminal organisations) have made so little use of CW up to now. It may simply be a question of why change from a simple reliable explosive to a CW with many uncertainties. However, there are reasons why terrorists might find it desirable or necessary to use CW in the future; for example, the general "brutalisation" of society and the necessity to find extraordinary methods of attack in order to gain public attention. Or, as with states, terrorist groups who struggled with little success over a long period in the past might resort to CW terrorism as a last resort.

The probability of using CW for terrorism varies according to regions. The largest probability is in the Middle East with its multitude of extremist organisations. In this region, there are enough people with the necessary skills for a sophisticated terrorist CW. In Europe and North America, the probability that terrorist groups will use CW is relatively remote. In Asia and Latin America, the chances could be considered as in-between. The greatest danger is generally considered to come from religious extremist groups or cults with ill-defined aims, as in the Tokyo subway attack by the Aum sect.

7 SUMMARY

The potential use of chemicals, toxins and infectious agents as weapons of mass destruction has been a subject of growing concern. Chemical Weapons were used for the first time in World War I and the last time in the 80's in the Iran/Iraq war. Biological Weapons have fortunately not been used deliberately in overt biological warfare on a large scale, although they have been discussed throughout modern times.

With the revelation of an offensive Russian BW programme, the discovery of Iraqi BW capabilities and capacities, the increasing threat from bio-terrorism, and recent developments in the fields of bio- and gene technology, it has become clear that biological agents as weapons are becoming more and more attractive. It was recognised early that there was an urgent need for international disarmament treaties to ban these types of weapons. Beginning with the 1925 Geneva Protocol and later with the Biological Weapons Convention in 1975, steps towards an effective regime against the proliferation of a whole category of weapons have been undertaken.

However, the crucial and most important point of verification was left outside the discussions for a long time. Only recently were verification measures an item of negotiation. With an additional protocol that prescribes the procedures for an efficient verification of compliance or non-compliance with the obligations of the Convention, States Parties are now willing to strengthen the treaty. Although considerable progress has been made with respect to the establishment of an appropriate control regime, there are still some doubts about the extent to which such a Convention is really verifiable in an effective way. Even with a verification regime it is probably not possible to circumvent all the problems inherent in the scope of the Convention such as the control of dual-use equipment, the distinction between defensive and offensive, and civilian and military activities, or the application of threshold quantities. Nevertheless, there is no valid alternative to a strong BW Convention for an effective ban of biological weapons.

CW, although already banned along with BW by the Geneva Protocol in 1925, have obviously been an accepted weapon throughout the 20th century. Developments in CW in the US and Russia have continued until the beginning of this decade.

The struggle for a stronger disarmament treaty for CW started in 1972, after the conclusion of the BWC. Only an historical "window of opportunity" made it possible for the Chemical Weapons Convention to be concluded in 1992 – the Soviet Union had ceased to exist, and the Western States had started to become much more worried about universal proliferation of CW than about cheating by the Soviet Union, now the Russian Republic. Russian and American interests began to coincide in many aspects. The CWC finally entered into force in 1997 as the first non-discriminatory, universal and verifiable disarmament treaty. In 1999, it has now become clear that the start up of the Organisation for the Prohibition of Chemical Weapons has been successful. The general expectation is that the CWC will reduce the CW threat, although it will take several years before the effectiveness of the Convention can be judged.

There are some implementation problems. First, a significant number of States Parties, even almost two years after entry into force of the CWC, have still not established legislation for national implementation. Another problem is that no challenge inspections so far have been initiated, despite the fact that rumours of treaty violations circulate. Additionally, the OPCW still has to cope with the problem that a certain number of "critical" countries are still absent from the CWC.

What are the prospects for the prohibition of CBW in the future? CW and BW still have a certain attraction. CW are relatively easy to develop if a country possesses a modest chemical industry. For those countries with a relatively low state of preparedness against CW and to whom access to modern weaponry is denied for political or financial reasons, it might still be a weapon of choice, particularly for those who have been classified as rogue states.

BW are relatively cheap and easy to access and have the *advantage* that potential attackers cannot easily be identified. This might be one reason for the increasing concern that BW will be used by terrorist groups. It is generally accepted that the chance of CBW being used in a conventional conflict between States is relatively

small for the time being. On the other hand, the chances that terrorist groups will use them are increasing, and the world will have to cope with that threat.

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NUCLEAR NONPROLIFERATION AFTER THE INDIAN AND PAKISTAN TESTS

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1 INTRODUCTION

The decision by the Indian subcontinent's two major states to cross the nuclear threshold should not have come as a surprise. It reflected a continuing concern for security and a belief that nuclear weapons still had a role to play in this. The end of the Cold War and the tensions accompanying figured more centrally in the security calculations of the declared nuclear weapons states (NWS) than those of others. The recognised NWS mistakenly (and typically) equated their own concerns with those of others. Yet other states' security concerns focus on specific conditions in individual regions, concerns largely untouched, where they have not been aggravated, by the end of the Cold War. If anything, the passing of the Cold War increased the insecurity of some states.¹

With the ending of tensions between the blocs, the NWS' attention shifted to the problem of 'loose nukes'. In addition to the concern about the possible leakage of materials and weapons to "rogue" states, was the possibility that signatories of the Non-proliferation Treaty (NPT) would follow Iraq and North Korea in using the Treaty as a cover to violate its provisions. Emphasis accordingly was put on potential violations by existing members of the NPT, coupled with restrictions on technology transfers. Suppliers control regimes and policies of denial came to the fore. At the same time attention was paid to shoring up the NPT. The 1995 unlimited extension of the NPT was considered a great success by the NWS. It was now to be followed up with a comprehensive test ban treaty (CTBT) and fissile cut-off agreement. Non-proliferation was now said to be enshrined as a "global norm". The 'repentant' nuclear states: South Africa, Argentina, Brazil and in a different category, Ukraine, Ka-

¹ For one not unrepresentative perspective, see Singh, Jaswant. Against Nuclear Apartheid. In: Foreign Affairs, Vol. 77, No. 5 (September/October 1998): pp. 41-52.

zakhstan and Uzbekistan, were invoked as examples of this norm in action. For the recalcitrant, counter-proliferation was threatened as a policy option.

The lack of serious attention to the motives of states determined to acquire nuclear weapons was all-too-evident. Nuclear non-proliferation had become a theology as well as an industry - technology focused, moralistic preachy. Instead of focusing on the few, key, 'determined' or 'dabbler' states² all of which had strong security motivations, the NWS pretended that abstainers, the numerical majority (the 'disinterested') were more important. The extension of the NPT with the promise of the follow-on CTBT, only enshrined the lead of the NWS who were thus able to continue refining their weapons through elaborate computer simulations ("stockpile stewardship" programmes etc.).³ There were no signs that nuclear weapons were being eliminated (as opposed to reduced in numbers) by NWS. Nuclear weapons tests were to be banned but not their use. Debate in the US in the period after the Cold war increasingly alluded to the need to keep nuclear weapons for possible regional contingencies. Russia regressed from Cold War days by renouncing its non first use policy, in effect lowering the threshold of use. The European NWS, France and Britain, reduced their programmes; even while living in a security community under the US nuclear umbrella, they were not willing to forego these weapons completely. It seemed they still needed these weapons for some undefined contingency.

The place of non-proliferation policy in the overall policy and priorities of the NWS has always been unclear and uneven. France and China are only recent adherents to the NPT. In the Cold War, the US and China had strategic reasons to ignore Pakistan's nuclear aspirations and both contributed in different degrees to it.⁴ China's role of supplier of nuclear designs and materials has remained an issue well into the 1990's while Russia too has evinced less concern about the transfer of technology than the US. Attitudes toward aspirant proliferators has been varied – "selective" indignation. Inconsistency and ambivalence about renouncing these weapons and policies in which NWS are actually purveyors of relevant technology, has done little for the moral authority of the United Nations' Security Council. Yet the context of

² In Brad Roberts' typology. Rethinking N+1. In: The National Interest, No. 51 (Spring 1998): pp. 75-80.

³ See also Cambasso, Jacqueline; Patrice Sutton. Nuclear Weapons: Now and Forever? In: Agni: Studies in International Strategic Issues, Vol. 2, No. 1 (May 1996): pp. 48-60; and Mack, Andrew. Five Nuclear Blasts and a Possible Silver Lining. In: International Herald Tribune (Hereafter cited as IHT), 18 May 1998.

⁴ Weiner, Tim. In: IHT, June 1998.
nuclear proliferation has changed. In the Cold War the principal rationale for proliferation was "strategic", i.e., tied to considerations revolving around the central balance. Today the prime concern is security in its regional context.

Among the industrial states the principal reason for non-proliferation has not been technical but political. In general, these states have not sought nuclear weapons because they have not seen the need for them. They have had their security assured by some other means; alliance, security guarantee, (armed) neutrality or strategic marginality. States outside the principal alliance systems often primarily concerned with regional conflicts (Israel, India and Pakistan, Korea, Iraq and Iran, for example) have looked to nuclear weapons as means of assuring their security. Non-proliferation advocates have rarely considered the regional contexts of aspiring proliferators or the threshold states. The resultant tendency to treat proliferation separate from its regional context, as a global issue, has guaranteed a dialogue of the deaf. Without some sensitivity toward the powerful and serious impulses fueling those making the decision to seek nuclear weapons, a successful non-proliferation policy is unlikely. The tendency to pursue a "one size fits all" policy, when in reality security is not evenly distributed and when in practice some states are discriminated against (by reference to their 'intentions'), makes the policy unrealistic and unviable. Especially towards the less-developed states, non-proliferation has been technology-driven, with the aim of making it more difficult for them to acquire the technical know-how helpful for a "weapons programme". Unfortunately, broadly speaking there is no such clear distinction in the technology. Using denial of technology as a barrier has been seen by some states, including Iran, (a member in good standing of the NPT) as proof that the NPT is indeed a discriminatory tool of the NWS. Technology denial is unlikely to be effective for long in an era of globalisation. It has been eroding and thus increasing the concern that this will open the door to the "rogue states", the main targets of these denial regimes.

In the case of the more technically advanced "threshold" states, which have not signed the NPT, the non-proliferators' hope was that they would not move to an overt capability through testing and weaponisation from their 'recessed' and ambiguous status. The events in the subcontinent in 1998 in which India and Pakistan decided to end the ambiguity about their status, can be ascribed to many causes but pressure for adherence to the CTBT was certainly a strong precipitating factor.⁵

Arms control has tended to focus on 'regimes'. The NPT itself was based on a package deal in which NWS promised to move toward nuclear disarmament (A.VI) and to facilitate the transfer of peaceful technology to signatories in good standing (A.IV). There has been much cant about the moral authority (or lack thereof) of the NWS. Complaints about enshrining inequalities or classes of states have rung in the halls of the UN. Yet there is little evidence supporting these global factors as assumed motives for proliferation. The relationship between the great powers' progress in arms control and stemming proliferation is unclear at best. While most agree that "fewer is better" we cannot be sure that India's detonation *not* followed by Pakistan, would have been "better".

Equally dubious is how far we can usefully generalise about the *motives* for proliferation: status, security, leverage, or hegemony. Or indeed what *drives* it: military or scientific interest groups, domestic prestige calculations, personal leadership considerations, etc. This ignorance is not surprising. Even in the advanced states we do not know what are the appropriate nuclear lessons learned from the Cold War period. Did nuclear weapons contribute to the "long peace" or did they add to the risks and problems of that era? The relationships between inventory size, doctrine and deterrence, non-use and deterrence, and indeed nuclear weapons and the absence of general war, remain unclear. Even the safety of the inventories and the risks of accidents and unintended use in crisis remain obscure.⁶

The argument of this brief paper is that if we are to address the problem of nonproliferation with any hope of success in the current era when security issues are not only decentralised but also highly variable according to region, we need to put the politics back into arms control and *not* the politics of the NWS but those of the key regions with which we are concerned. Addressing the security concerns of likely proliferators is the starting point for an effective non-proliferation policy.

⁵ See, especially, Chellaney, Brahma. If pushed over the Test Ban Pact, India could really 'Go Nuclear'; and India prepares to take a more assertive nuclear posture. In: IHT, 7-8 September 1996 and 23 March 1998.

⁶ See Farrell, Theo. The new nuclear history revealed. In: International Affairs, Vol. 75, No. 1 (January 1999): pp. 121-128.

2 CROSSING THE THRESHOLD: INDIA AND PAKISTAN

The series of tests conducted first by India and then by Pakistan in May 1998 indicated a decision by each states to exchange their status as undeclared 'threshold' nuclear weapon states in favour of an overt, declared status. The motives for this change, its consequences for stability on the subcontinent, its implications for nuclear nonproliferation elsewhere, and future arms control merit examination.

For some time Indian defence analysts had been unhappy with the state of the national nuclear programme. Ambiguity inhibited the formulation of a viable nuclear strategy which seemed called for in light of China's increasing power and its continued supplies of arms and materials to Pakistan. By 1996 these strategists concluded that "a [nuclear] strategy of sustained ambiguity is no longer a feasible proposition" and that India needed to "formulate a comprehensive long-term nuclear strategy..."⁷

An influential supporter of a minimum nuclear deterrent for India articulated the case for more testing by reference to the fact that many scientists and military leaders believe:

"the data base of just one test may not be enough. There is therefore pressure to conduct a few more tests before any test ban treaty becomes effective. Unfortunately *[Gen. Sundarji argues]* these doubts about the efficacy of our deterrent have found their way into the public debate. This I am afraid might well have led our potential nuclear adversaries, China and Pakistan, to also have such doubts, and that would be disastrous for the credibility of our deterrent. If this assessment is correct, I say go ahead and carry out more tests. Thereafter, we may announce a self-imposed moratorium on further tests."⁸

Technical considerations intersected with political imperatives. Delhi's sense of marginalization after the end of the Cold War, the rise of China, and the increasing pressures on India to sign the CTBT all contributed to the decision to resume testing.

Ten days before the tests, Indian Defence Minister George Fernandes was brutally frank about India's security perspectives: he suggested that in the past India had been "careless" about national security; broke the 'taboo' in referring to the Chinese military buildup and its nuclear weapons stockpiled on the border in Tibet; and to its

⁷ Agni: Studies in International Strategic Studies, Vol. 2, No. 1 (May 1996): editor's page: v-vi.

⁸ General Sundarji, K. Imperatives of Indian Minimum Nuclear Deterrence. In: Ibid.: p. 21.

transfer of "both missile and nuclear know-how" to Pakistan.⁹ China reacted with restrained anger.¹⁰ Calculations of domestic political advantage by a weak BJP government also figured in the timing of the decision. Pakistan followed suit in part because it saw no advantage in not doing so (no security guarantees or attractive inducements were offered) in part because it could not afford to let Delhi believe that it had achieved a decisive advantage. Pakistan therefore claimed nuclear "parity" after its tests. While India pointed to China as its principal strategic concern, it had been Pakistani tests of its *Ghauri* missile in April which served as an excuse for India's move.

For Pakistan, nuclear weapons may be intended as an equaliser to compensate for its conventional inferiority vis a vis India. India however, which enjoys conventional advantages over Pakistan, intends its nuclear weapons as a deterrent vis a vis China.

Both India and Pakistan indicated that they planned to move to weaponisation and to mounting warheads on missiles as speedily as practicable¹¹ allowing for doubts about the exact stocks of fissile material each has, about the relative accuracy and range of the respective missile programmes, and which state has the advantage in each department in the immediate future. The question remains; what are the implications of this accelerated arms race for subcontinental stability?

Since 1990 it has become a cliché in the arms control community that the Indian-Pakistani border is the most likely area for nuclear confrontation and the use "in anger" of nuclear weapons. Briefly, the reasoning runs as follows:

- distances are short, there will be little accurate intelligence hence little warningtime, hence an incentive to launch missile quickly, even preemptively;
- geography favours India as Pakistan has little strategic depth and could be overrun conventionally quickly, giving it an incentive to move or threaten nuclear weapons quickly in conflict;
- physical adjacency and contiguity ensures frictions and sparks, especially over Kashmir, which will be difficult to contain and which risks escalation to nuclear threats or use;

⁹ IHT, 6 May 1998 and Asian Security: Aiming Missiles. In: The Economist, 9 May 1998: p. 66.

¹⁰ Burns, John. China riled by official in New Delhi. In: IHT, 6 May 1998.

¹¹ Smith, Jeffrey. Missile Strike Forces in the Making. In: IHT, 15 May 1998.

- domestic politics in each country encourage jingoism, brinkmanship and miscalculation;
- deficiencies in technology and command and control entail risks of accidental release and unauthorised decisions especially in crises;
- the triangular nuclear geometry between India which wants to deter Chinese aggression through nuclear weapons and Pakistan which wants to do the same versus India, is complicated and not conducive to stability; and
- one state, Pakistan, feels existentially threatened, while at the same time its policies in Kashmir may result in conventional skirmishes with India which could leave Pakistan with few options but escalation to nuclear weapons use.

The need for crisis management, confidence-building and strategic dialogue is selfevidently increased under these conditions.

India has offered a voluntary moratorium on further testing, hinted at an interest in joining the CTBT and a fissile cut-off agreement under certain conditions. Delhi has also declared a doctrine of unconditional no-first-use of nuclear weapons. India has hinted that it seeks only a minimum deterrent, a small, finite, arsenal for deterrence rather than war-fighting purposes.¹²

Pakistan has been more reticent and will not agree to a no-first use agreement; its nuclear weapons are in part intended to deter *any*, including a conventional, attack from India. While Pakistan is eager to internationalise the Kashmir issue and supports all initiatives to this effect, India seeks to keep the issue bilateral, consistent with the Simla agreement of 1992.¹³ (This still leaves room for agreement on a "no war" pact or other CBMs).

In light of the expectation that both countries will achieve weaponisation and an ability to deliver nuclear warheads by missiles in the next two years, what can or ought to be done? The Perm-5 and G-8 do not want to "reward" these two countries by reopening their status or changing it to one of "nuclear weapons state" which implies revising the NPT. On the other hand they could not agree on joint sanctions either. The US, the keenest to show that proliferation does not pay to other aspirant states, did not push for sanctions very hard. This may reflect the fact that its policies of

¹² Cooper, Kenneth. India Eschews Big Nuclear Arsenal. In: IHT, 18 June 1998.

 ¹³ Nicholson, Mark. India spurns attempts to broker talks. In: The Financial Times, 5 June 1998;
 The Tinderbox of Kashmir. In: The Economist, 13 June 1998: p. 68.

denial and attempts at rollback, and then since 1995/96 "capping" their programmes, had all failed. Given the dangers, a policy of "management" in which the passage across the threshold is implicitly acknowledged and policies and technology that can help to stabilise the region are offered, may appear to be a more productive line for future policy.¹⁴ US frustration was clear; it had been unable to influence events and remained unwilling to "engage". The reaction of other countries varied. China took the initiative to convene the Security Council after the tests, but refused to acknowledge any of India's allegations about its role in sparking India to cross the threshold. China did not offer Pakistan a security guarantee to seek to induce it not to follow India across the nuclear threshold.¹⁵ Russia, while joining in the condemnations of the tests, followed this by announcing continued nuclear cooperation with India (under appropriate safeguards) and on defence and anti-ballistic missile defences.¹⁶

Whether this gave the "wrong signal at the wrong time" as Washington insisted, or not remains to be seen. France's reactions were the most constructive. On the one hand President Chirac looked to inducements to see how India and Pakistan could join the fissile cut-off talks and the CTBT in UN negotiations. On the other hand he took seriously the Indian perception of threat from China and the need to defuse this for progress.¹⁷

Measures intended to stabilise the region by reducing tensions (possibly by technology transfer) must not appear to reward proliferation. Engagement and inducements will need to replace isolation and sanctions but in a way that appears constructive rather than panicky. The ability of outside powers to influence the policies of the states on the subcontinent appears limited in the absence of a willingness to commit themselves meaningfully to their security concerns. Without offering security guarantees, which may or may not be credible, and may or may not be stabilising (it could widen and escalate a dispute, or encourage adventurist behaviour by the state that is thus reassured), the Perm-5 should offer their good offices to promote dialogue, military exchanges etc. between India and China and India and Pakistan.

¹⁴ Along the lines suggested by Heisbourg, Francois. The Prospects for Nuclear Stability between India and Pakistan. In: Survival, Vol. 40, No. 4 (Winter 1998-99): pp. 77-92.

¹⁵ IHT, 29 May 1998; see also Lippman, Tom. Pakistan may press for security pledge. In: IHT, 21 May 1998.

 ¹⁶ See IHT, 23 June 1998; and Nicholson, Mark. India and Russia extend co-operation on defence.
 In: The Financial Times, 24 June 1998.

¹⁷ See IHT, 30-31 May 1998; and Fitchett, Joseph: France sees China-India ties as key. In: IHT, 4 June 1998.

Agreement on the non-deployment of nuclear weapons; cooperative monitoring and other confidence building measures should be encouraged. Discussion of the Kashmir issue should be a priority. What the existing NWS *cannot* do with any conviction is to deny the security concerns of other states or to dictate to them how they should be met.¹⁸

Some analysts, like Tom Graham and Henry Kissinger, observed that the most important effect of the developments on the subcontinent would be in the encouragement of others.

3 IMPACT ON THE GREATER MIDDLE EAST

Israel, the only other threshold state, has sought to retain the strategic benefits of ambiguity about the status of its nuclear capabilities without specifically acknowledging them. Since 1990 however Israel's traditional policy of neither denying nor claiming a capability, while retaining nuclear weapons as a 'last resort' has come under pressure. This nuclear ambiguity was intended as deterrent against an existential threat, i.e., superior or more numerous Arab conventional forces. The original motives of this deterrent had changed as peace treaties were either concluded or contemplated with immediate neighbours. The 1991 Gulf war saw the use of missiles against Israel from more distant states. The spread of these capabilities, and the related spread of weapons of mass destruction capabilities, chemical and biological, in the region to Syria and Iran as well as Iraq, is another newer source of pressure. Another new feature is the quest for nuclear capabilities by Iran (as well as Iraq). Israel suspects that Iran (and Iraq) would threaten it directly in any future war. At the same time, the Arab states and Iran have become vociferous about Israel's nuclear 'monopoly'. Some have tied their ratification of the Chemical Weapons Convention (CWC) to Israel's adherence to the NPT. Many have resisted further discussions about arms control and regional security (ACRS) under the Madrid peace process, and some opposed the NPT extension, until Israel was more forthcoming on this issue. At the same time, Israel's adversaries argued that its nuclear programme made that of others 'understandable'.

¹⁸ On this subject, see Chellaney, Brahma. After the tests: India's options. In: Survival, Vol. 40, No. 4 (Winter 1998-99): pp. 93-111; and Singh, Against Nuclear Apartheid.

The problems posed for Israel and the region are thus:

- the spread of WMD and missiles threaten to complicate Israel's traditional nuclear policy and give it a new rationale;
- the relationship between other WMD and nuclear weapons in deterrence (what deters what?) is a difficult one, raising questions about doctrine, credibility and thresholds; and
- emphasis on Israel's nuclear capability distracts attention from, and provides cover for, the nuclear ambitions of Iran and Iraq. It also puts Israel under pressure to clarify its policy to some degree.

One of the issues raised by the widening of the strategic canvas by the spread of long-range missiles (especially to Iran), and its complication by other WMD, is the role of nuclear weapons in deterrence and whether Israel needs a new or more explicit deterrence doctrine. While no new doctrine has been announced, the issue remains an active one. If pre-emption (as in the attack on Osirak in 1981) is no longer a practical option, deterrence is critical. Yet some have argued that these "rogue" states are "undeterrable". Indicative of the debate is the suggestion by an Israeli scientist that Israel may have to equate any missile attack on the country with a WMD attack i.e., treat it as such as a matter of course whatever its actual payload.¹⁹

This underscores Israel's (perhaps special) degree of sensitivity to potential WMD attack, and the degree to which uncertainty and limited warning time may conduce to built-in escalatory responses, in this case in the form of an automatic lowering of the threshold. Other considerations, such as whether ambiguity is a suitable doctrine for likely adversaries, whether Israel should consider a sea-based leg for its deterrent to shore up its second-strike capability, and the degree to which it ought to invest into defence (ATBMs), all suggest the degree to which the Middle East has been influenced by recent developments. Debate in Israel has begun to consider the implications for Israel if it were to lose its nuclear monopoly.²⁰

In Israel much was also made of the need to stop the transfer of technology to Iran and Iraq, e.g., Israeli defense experts were reported as predicting that Iran's Shihab-3 missile (1300 km range) would be able to hit Israel within a year "if Russian help

¹⁹ Dov Raviv, father of the Arrow project, Ha'aretz, Tel Aviv, 4 June. In: Summary of World Broadcasts, BBC, ME/3246 MED/7, 6 June 1998.

One analyst suggested that Israel was already considering development of a sea-based second strike capability. Melman, Yossi. Seen from Israel: the signs point to a Nuclear Arms Race. In: IHT, 10 June 1998.

does not cease."²¹ Some emphasised the dangers of further nuclearisation and need for a comprehensive settlement much along the lines of President Rabin's statement to the Knesset in 1992.

An additional emerging concern has been about the 'nuclear geometry' of the area. The emergence of new undeclared nuclear capabilities could increase the risks of miscalculation in crisis. With the existence of multiple conflicts and potential axes in the region, deterrence would be more difficult. While Israel considers both Iran and Iraq as potential adversaries, Iran considers Iraq a threat and vice versa.²² With no or inadequate (satellite) intelligence and very short warning times, the premium on early use and the attendant risk of miscalculation, must increase. The need for a strategic dialogue among the local states has correspondingly risen.

These pressures, mounting since 1990, have now seen an additional one coming from the subcontinent. In the area of diplomacy, for example, in the Geneva-based "Conference for Disarmament" (CD), the spotlight inevitably shifts to Israel's intentions, while for its adversaries, it provides a means of drawing attention to the policies of the remaining threshold state. For Israel, the advantages of ambiguity remain. While not a party, Israel supports the NPT regime and does not want it weakened. It has signed the CTBT (but not yet ratified). It has also signed the CWC.²³

Israel's reaction to the events on the subcontinent was typical of the region, it interpreted the events as a reinforcement of its view of the need for supplier controls, and for more urgency to be attached to the implications of the nuclearisation of the region. Similarly, Iran and the Arab states used the occasion to emphasize Israel's continued singularity and the dangers this posed to the region and to further proliferation. Official statements thus oscillated between the threat of further proliferation and the need for more control of existing nuclear weapons, especially those of Israel, but also those of other, declared, nuclear powers.

Iraq of course welcomed the tests on the subcontinent and drew attention to Israel's nuclear weapons as justification for its own efforts, undertaken for collective Arab interests. Iranian declarations ran the gamut: from deploring the developments on the subcontinent as a threat, to blaming Israel's continued intransigence in not joining

²¹ Israel TV, channel 1, Jerusalem, 25 May, BBC ME/3237 MED/13-14, May 27, 1998.

²² For a broader discussion, see Chubin, Shahram. Eliminating Weapons of Mass Destruction: The Persian Gulf Case. Occasional Paper, No. 37. Stimson Center, Washington D.C., 1997.

²³ On Israel's policy, see Feldman, Shai. Israel and the Cutoff Treaty. In: Strategic Assessment (JCSS), Vol. 1, No. 4 (January 1999): pp. 6-9.

the NPT, to hinting that the NPT would unravel if the nuclear weapons states did not do more in disarming their arsenals.

Public declarations apart, the strategic linkages between the subcontinent and the Middle East are tenuous. The strategic interconnections between Pakistan and the Middle East are weak, although there are states that would like to justify their bomb programmes as in the interests of "Islam", and others which would like to threaten Israel by calling in nuclear-capable allies. On the level of diplomacy, it is difficult to imagine that how harshly (or firmly) the great powers sanction India and Pakistan to draw the line for other proliferators, would have a significant effect on the nuclear ambitions of the Middle Eastern states. After all, these states are all signatories of the NPT and their putative violations are not comparable to the decisions of India and Pakistan as non-signatories.

Moreover states do not embark on such costly and dangerous projects lightly. Iran and Iraq have their own reasons for going down this path which includes perceptions of threat and regional ambitions.²⁴ It may well be that the lessons of a long war of attrition, 1980-88, the uncertainties of importing conventional arms and the difficulty of mastering them, all played a role.²⁵ There is no doubt that the nature of the regimes in both countries has something to do with it. The strategic rationale for nuclear weapons to compensate for various geopolitical asymmetries by a qualitative advantage, is somewhat more plausible for Iraq that for Iran. The Islamic republic has no *urgent* strategic rationale, other than the enmity it has invited from Israel and to some extent from continuing doubts about Iraq's nuclear ambitions. A plausible case though can be made for seeking an option as a hedge. The regime would also dearly like to use the assumed prestige that would accompany nuclear status. But this is not easy: how to claim nuclear status without breaking the NPT? Or how to withdraw without clear loss? Would this leave Iran with a net gain in security? And how confident can they be that prestige will attached to such a claim if the country is in

poverty?

The overt nuclearisation of the subcontinent of course does weaken the argument that non-proliferation is a *global* norm. But states are not moved to automatically seek nuclear weapons for abstract reasons or simply because others do. Some states are

²⁴ See Chubin, Shahram. Does Iran want Nuclear Weapons? In: Survival, Vol. 37, No. 1 (Spring 1995): pp. 86-104.

²⁵ See Chubin, Shahram. Iran's National Security Policy. Washington D.C., 1994.

covered by a security umbrella, others, notably in Europe, additionally live in a peace zone, while nuclear capabilities are simply beyond the capabilities of still others. The difficult cases are the areas of conflict, unsecured by reassuring alliances and democratic regimes, where disputes are unresolved. The greater Middle East is such an area, the prime candidate for nuclear proliferation well before the subcontinent moved across the threshold.²⁶

What are the practical effects of this for the Middle East then? Discarding the "Islamic bomb" as unlikely (India has a large Muslim population, its chief bomb designer is Muslim, and it enjoys close relations with Islamic Iran, Israel and formerly Iraq; while Pakistan, close to Saudi Arabia, has never participated in any war with Israel) then what are the other linkages? Iran and Pakistan are not on good terms and differ on Afghanistan and sectarian issues. These, however, are not the stuff of nuclear rivalry. The role of China as a supplier of nuclear materials is one issue. Leakage of nuclear materials from the subcontinent to the Middle East is perhaps of some increased concern now, (but the role of Russia and China as intentional or inadvertent suppliers is already well developed). None of these states will deliberately foster the legitimate nuclear programmes of others, although there is a continuing debate as to how to define 'legitimate'.

An issue raised by the reactions of the great powers to the detonations is the extent to which outside powers can influence the policy of determined states and with what policy instruments. Denial of technology and restrictions on transfers may or may not work but the reaction of most Security Council members in the wake of the explosions has been to move toward inducements. An analogous case is that of Iraq. Sustained sanctions do not appear to have changed intentions in Baghdad. Intrusive inspections for over eight years have done little to dispel suspicions about suspect programmes and capabilities. The implication surely is that sanctions and denial buy time and impose costs, to deal with motives however, requires policies that take politics into account. There may be lessons here for the treatment of suspected proliferators in the future.

4 THE KOREAN PENINSULA

²⁶ On these lines see Delpech, Therese. Nuclear Weapons and the 'New World Order': Early Warning from Asia? In: Survival, Vol. 40, No. 4 (Winter 1998-99): pp. 57-76.

Since the end of the Cold War, no area matches East Asia, a region of old unresolved (in addition to new) disputes and rivalries, for strategic importance. The role of the regional powers, and in particular China and Japan, are in flux, while the precise role of outside powers, like the US and of regional security institutions like ASEAN, and ARF, await definition. Two focal points of potential crisis remain the Korean Peninsula and the status of Taiwan.

The agreement reached in 1994 by the US and North Korea on a package deal to 'compensate' the latter for renouncing its apparent nuclear capability and initiating dialogue with the south, does not concern us here. Suffice it to say that the arrangement reflected a decision by the US to deflect N. Korea from a course which would have had grave implications for stability on the Korean peninsula, Japan, and by extension the rest of East Asia. We cannot be certain that N. Korea possessed the nuclear capability that it claimed. What is certain is that the regime had neglected to conclude safeguards agreements in a timely way after signature of the NPT and that it had developed nuclear weapons grade material in a clandestine fashion. This combined with the notorious hermit-like nature of the regime and its penchant for brinkmanship and general volatility, together with its manifold economic problems aggravated by famine, made Pyongyang's threats to develop nuclear weapons all-tooplausible. Given the strategic implications of this, first for S. Korea and next for other states within missile range of the Koreas, notably Japan, Washington had decided to seek to use dialogue and inducement to forestall this turn of events. Even before the developments on the subcontinent, the 1994 agreement seemed to be frozen. In addition, the economic crisis in Asia had changed the context of the agreement: South Korea was less able to pay (N. Korea needed \$400m in food aid) and less enthusiastic about (costly) unity, though still anxious to engage its northern neighbour. Washington, and especially Congress, had taken a passive role in regards to the agreement, "the ball is in North Korea's court". This policy of drift and neglect by Washington was criticised by some analysts who argued for more initiative (possibly a grand package deal) especially one that focused on reducing the military threat and accelerating the pace of change in N. Korea.²⁷

How did the crossing of the threshold by India and Pakistan affect the Korean peninsula? It would have been surprising if the faltering regime in the North had not (again) used the threat of non-compliance to enhance its bargaining power. It did so

See Mazaar, Michael. A Time to be Bold? In: The National Interest, No. 51 (Spring 1998): pp. 91-98; see also Still Divided. In: The Economist, 18 April 1998: p. 63.

immediately by threatening to resume its nuclear programme and following it up a month later by a threat to resume (and expand) missile sales to the Middle East. In August, to Tokyo's consternation and disgust, North Korea undertook missile (satellite) tests over the Sea of Japan, prompting in the Diet calls for a suspension of any assistance under the 1994 agreement.²⁸

The relationship between North Korean missile sales to Iran and Syria and Israel's concerns about the proliferation of WMD needs no reiteration here. What is more germane is the threat of the nuclearisation of the Koreas for the rest of Asia. Clearly if the 1994 agreement were to unravel, other states would have to reconsider their options. If Japan was to rely less on the US security umbrella, and were to develop and weaponize its 'virtual' capability, further weakening the NPT, other states would doubtlessly follow. Under those admittedly extreme conditions, the unraveling of the NPT would not stop there but would affect the calculations of other states in other regions. This underscores the importance of the North Korean case and centrality of the US role in the security of the region (and in sustaining non-proliferation there).

North Korea's behaviour is neither new nor typical but rather a tactical exploitation of its enhanced leverage following the Indian tests. It reflects frustration with the slow implementation of the 1994 agreement and real frustration with its daily problems. What is clear is that in light of developments, the 1994 agreement and KEDO, the consortium associated with it, need more attention. It needs to be implemented rigorously if N. Korea is to be held to its terms. It lacks cash with a shortfall of some \$400m, which could be made up by the EU/US (which currently only contribute some 2% of the reactor cost), with Japan and S. Korea bearing the lion's share of the cost.²⁹

Technical capabilities in the nuclear area are growing in Asia, the only growth area for nuclear power in the world today. Some states, notably Japan but also Taiwan, have a well-developed base which could easily and quickly be converted to a weapons programme, should the necessity arise. North Korea's motives are not typical but they include security considerations and leverage for bargaining. Taiwan and Japan would have more serious security motives if they had doubts about the US security umbrella. This could arise from a decision by the US to reduce its military

²⁸ Sullivan, Kevin. Experts Doubt North Korea's Taunt. In: IHT, 15 May 1998; and Sullivan. North Korean Missile Disclosure. In: IHT, 17 June 1998; see also Delpeche, Nuclear Weapons and the 'New World Order'.

²⁹ More cash for KEDO please. In: The Economist, 20 June 1998: p. 18.

presence or to reverse its policies in relation to these states. It could also be sparked by more extensive proliferation elsewhere in the region, which is not likely.³⁰

In brief, proliferation in east Asia will be strongly influenced by the success of the international community in reversing North Korea's programme and by the US in providing Taiwan and Japan with security so that they do not feel impelled to move to self reliance through the quest for nuclear weapons.

5 IMPLICATIONS FOR ARMS CONTROL

In seeking solutions to nuclear non-proliferation it is tempting to depict it as a global problem with global solutions. The Economist is not alone in seeing linkages between the UNSC failure to respond harshly enough to North Korean and Iraqi violations with sanctions (rather than inducements) and other cases: "The lesson to other nuclear wannabes: rogue behaviour pays."³¹ Others see a failure by the NWS in setting an example under A.VI and in disarming. But this is not feasible in the foreseeable future and hence hardly a prescription for dealing with the most pressing proliferation challenges.³² It could even be argued that such disarmament might increase the incentives for proliferation both because of the advantages in such a situation and because of the increased need for self reliance for some newly-exposed states. Inducements may or may not work. They appear to have been partially responsible for keeping Israel from crossing the threshold. They were not really tried in the case of India where they might have changed the calculus somewhat if offered to prevent a move in India's status and to stabilise its programme.³³

³⁰ However North Korea's test on 31 August 1998, of what is claimed to be a satellite, but what others saw as a missile over the Sea of Japan, raised new considerations. Foremost among these were the security implications for Tokyo of North Korea's ability to reach and target all of Japan's major cities. One possibility is cooperation with the USA in the development of antimissile defences. This, however, raises a controversy with China which sees such systems as likely to devalue its own missile force. For some of the background, see inter alia, Kristof, Nicolas. North Korea becoming increasingly bellicose. In: IHT, 4 January 1999; Shenon, Philip. US pact with North Korea is nearing collapse. In: IHT, 7 December 1998; Pons, Phillipe. Le Japon s'inquiète d'une proliferation nucleaire après les essais indo-pakistanais. In: Le Monde, 3 June 1998; Richardson, Michael. East Asians Fear Rivalry for Nuclear Arms might drift their way. In: IHT, 3 June 1998.

³¹ A bomb in every backyard. In: The Economist. 6 June 1998: pp. 15-16.

³² See Glaser, Charles. The flawed case for Nuclear Disarmament. In: Survival, Vol. 40, No. 1 (Spring 1998): pp. 112-128.

³³ As Virginia Foran argued India had crossed the threshold in the summer. The Case for Indo-US High Technology Cooperation. In: Survival, Vol. 40, No. 2 (Summer 1998): pp. 71-95.

Non-proliferation policy often appears to lack focus. If the problem is not general, but limited to a few states, it is worth focusing on those, while enlisting the support of the large majority. In concentrating on the 'dabblers', and "creating incentives for the contingent proliferator to abandon programs lacking an over-riding strategic purpose" the problem would be narrowed. The harder cases would still need even more attention, but their problems are specific rather than generalizable. Related to this is a problem identified by Brad Roberts: the tendency to treat nonproliferation as a policy in itself unrelated to general foreign policy as a whole, of which it is "an integral component". Without a strategic perspective "there is no way to decide where proliferation fits in US priorities at any given time."³⁴ Compartmentalised under arms control, nuclear non-proliferation is periodically brought out of the cupboard as the holy grail or waved about in the shape of a stick rather than integrated into overall security policy.

The nuclear tests in India and Pakistan are a stark reminder that nuclear weapons, however obsolescent in the minds of some, remain a potent instrument of security for others. Arms control approaches based on assumed universal "norms" that slight security interests and regional realities are unlikely to meet with great success. Security is not evenly distributed globally. The end of the Cold War did not enhance the security of all states. For some states regional issues were and remain the driving force behind their security problems. Only a Cold War mind-set and neglect of regional realities, i.e., a Western/Northern parochialism, could fail to see that regional balances and conflicts might be *aggravated* by the end of the conflict in the "central" front. Seen from the perspective of particular regional states, deprived of the strategic leverage gained in the Cold War, of access to arms supplies on a concessionary basis, and of allies and guarantees, the world may look a *more* menacing place, especially to states not allied to the world's remaining superpower.

Nuclear proliferation is not global problem but a problem of particular states. States that look to nuclear weapons do so for reasons tied to their security. There are not many such states and their conditions are very specific. The motives underlying these states' drive for nuclear weapons capability vary and are mixed but they are rarely frivolous. It is doubtful that any of the new or aspiring proliferators are primarily impelled by considerations of prestige, which largely drove the British and French programmes. Security considerations are uppermost for states moving in this direction. And it is there that answers must be sought.

³⁴ Roberts, Rethinking N+1, p. 79.

It is indicative that the so-called 'repentant' proliferators, Argentina, Brazil, South Africa and three former USSR states, had no strong security motivation to persist with an option; their considerations had always been political rather than urgently strategic. (In the case of Ukraine its security concerns were met by assurances and guarantees by the nuclear weapons states.) Consider by contrast the proliferators in the Gulf and Middle East, the subcontinent and the Korean peninsula. In all three regions major interstate wars have occurred, in two regions repeatedly, with major territorial consequences. The use of force has achieved results. The possibility of a recurrence of war exists and casts its shadow on these regions. In two regions, states (Israel and Pakistan) have felt existentially threatened. In none of the regions has there been a settlement of the issue underlying the conflict. It was regional dynamics and not the Cold War that fueled conflicts in the Middle East. The demise of the Soviet Union created problems not only for its favoured arms recipients but for all states concerned about balancing the US. This factor plus the US' wooing of China could hardly fail to have its influence on security considerations on the subcontinent.35 Similarly, the withdrawal of the USSR and Sino-US overtures affected the security calculations of a beleaguered and failing North Korea. Yet instead of greater consideration of the key areas of proliferation concern, attention was focused on global approaches. Pressures on India regarding the CTBT appear to have encouraged that state to declare its position unambiguously.

The United States has shown a distinct ambivalence in its policies. It has moved from attempts to "rollback" India's nuclear capabilities to seeking after 1995 to "cap" them, i.e., to freeze the situation of non-weaponization. Consideration was given (and many analysts) proposed to offer India technological inducements in a strategy of engagement to strengthen the ambiguous status quo. This was not adopted before the May 1998 tests. The question now is whether the sanctions adopted are appropriate.³⁶ Perhaps the US should move to a policy of "managing" the fact of proliferation and seeking to stabilise it, technically and politically. However, it is precisely in the political area that the US remains most reluctant and deficient.

³⁶ See Nye, Joe. Sanctions won't curb proliferation. In: IHT, 28-29 November 1998; also Hoagland, Jim. Punishing India doesn't look like smart policy. In: IHT, 23 February, 1999.

³⁵ Friedman, Tom. India asks why America ignores it and courts China. In: IHT, 22 June 1998. For an earlier appreciation of the sense of slight and quest for status note, see Pfluger, Friedbert. To avoid a nuclear test by Delhi, treat India as a world power. In: IHT, 2 December 1997.

Unwillingness to get involved has characterised policy – hence the emphasis on sanctions and the bias toward technical constraints and solutions.³⁷

Nevertheless, US policies in addressing the security concerns of states may be decisive. Consider the cases where the dog has not barked. In the mid-1970's President Carter's intimations that the US would reduce its forces in Asia saw a rapid move by South Korea and Taiwan towards a nuclear weapons option. This was reversed when the US reconsidered folding its security umbrella. Japan's nuclear calculations too take into account the US security umbrella. The question of what sort of security guarantees or assurances and by whom, remains central to any realistic nonproliferation policy. The demand is clear but the supply is less so. Given the risks to NWS that a breach of the nuclear taboo elsewhere may have on their own ideas of deterrence, and the impact of the use anywhere of nuclear weapons may have on the policies of other states regarding proliferation, the NWS should consider the question of security guarantees altogether more carefully.³⁸ However tempting, it may not be possible to decouple from the nuclearisation of other regions. This also requires dealing with the underlying security issues that fuel nuclear proliferation. Ultimately, this involves an emphasis on regional dialogue which may be facilitated by third parties. Dialogue that increases contacts and fosters awareness of each others positions at least may reduce the risks of misunderstanding. With luck it will create interest groups favouring its institutionalisation. This, in its own way, may in turn make a strategic dialogue a reality. Outside powers, to the extent that they act as facilitators and help in establishing procedures, make compromise possible and mechanisms that stabilise the region can play a useful role. When they take sides and tilt in one direction they become part of the problem. Sanctimonious moralising only encourages mutual finger-pointing.³⁹ When emphasis is put on counter-proliferation and threats over consensual diplomacy, the outside power only encourages proliferation. Unilateralism has costs.

Related to this is the place and role of arms control. The Arab states and Iran want Israel to renounce nuclear weapons and join the NPT *before* engaging in further dis-

³⁷ Hoagland, Jim. The lone superpower is falling behind the curve. In: IHT, 4 June 1998.

³⁸ On this see Goldblat, Jozef. How secure are states without nuclear weapons? In: Security Dialogue, Vol. 26, No. 3 (1996): pp. 257-263.

³⁹ On these lines see the comment of the Director of the IISS after these words were written at the 40th Annual Conference, Oxford, 3-6 September 1998. Director's Summing Up. The focus needed to be on understanding and managing specific regional incentives and predicaments. In this context, anti-nuclear sermonising seemed especially promising.

cussions about arms control and regional security. Israel seeks a comprehensive peace settlement as a precondition to moving in this direction. The circularity of the impasse is clear. Without reduced tensions, successful peace negotiations are improbable, and without some arms control, reduced tensions are unlikely. In the Middle East as in South Asia, regional tensions are the prime motivation for arms competition whose regulation needs some regional accommodation. This in turn presupposes regional dialogue. To facilitate this requires a degree of neutrality and commitment by outside powers to enable the local parties to initiate the dialogue which they would be unable to undertake left to themselves. This in turn implies that while outside powers cannot dictate terms, they cannot afford *not* to have positions and to leave local parties to solve the issues based on the existing (often unequal) power balance. In brief, arms control cannot progress without security assurances and the sustained rather than sporadic *political* commitment of outside powers. (These conditions do not exist in either the Middle East or subcontinent.) Good and engaged diplomacy is thus good arms control.

I have argued for an emphasis on regional nuclear arms control (and nonproliferation policy). This is essential for the future of arms control. Global regimes and norms set standards, but not for the hard cases. They reflect the decisions of states that do not feel threatened. They do not reflect the world as others experience it. Regional arms control that deals with concrete security problems in their context are essential. Whether through a bilateral dialogue (e.g., India-Pakistan, North-South Korea), or through regional mechanisms, dialogue can be started. The criteria to be applied are much easier to identify where some standards already exist, e.g., UNS-COM standards to Iraq's weapons of mass destruction. Differences of approach are inevitable. The Arab states and Iran insist that Israel join the NPT, while Israel prefers a stronger regional arrangement with stringent mutual verification, itself a confidence building measure, *after* a peace agreement.⁴⁰ There are also differences on timing or sequence and of tradeoffs, with links being made explicitly by some Arab states between chemical and biological on one side and nuclear weapons on the other.

In the wider Middle East, after at least six major interstate wars and with the proliferation of WMD, the risks and costs of war need little elaboration. Getting from there to peace with equal security still remains problematic. Building on current regional

⁴⁰ For a useful summary of the position, see Cohen, Avner; Joseph F. Pilat. Assessing Virtual Nuclear Arsenals. In: Survival, Vol. 40, No. 1 (Spring 1998): pp. 135-167 and fn. 4.

approaches, including the near-moribund Oslo process, ACRS, UNSCOM, the GCC, engagement of major regional states and the promotion of regional dialogue, requires external assistance. The application of arms control techniques and approaches from other areas (CFE) might be helpful. Arms control may make peace treaties possible or be embedded in peace treaties e.g. between Iran and Iraq, Iraq and Kuwait, and the Arab states and Israel, and thus can contribute to the stabilisation of the region. In that sense the best arms control and non-proliferation policy is diplomacy that increases security all around.

Arms control research should focus on options and tradeoffs in their specific regional contexts. This implies better knowledge of the politics and culture of areas and less reliance on technical panacea or global formulae.

6 SUMMARY

Nuclear weapons proliferation is a regional and local phenomenon stemming from intense concerns about security. It can only be treated in the context of that security environment and not by global remedies, admonitions or threats. Arms control divorced from regional realities has proven bankrupt. Measures taken to reassure states and build confidence will reduce the incentives for nuclear weapons. But for the handful of states that seriously consider these weapons threats, sanctions and isolation are counterproductive. They may reinforce the incentives. Imaginative and empathetic diplomacy will be more constructive and conducive to diminished reliance on nuclear weapons.

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